CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

Rochdale House
128 Theobalds Road
London WC1X 8RP England

WEEK C51
11 FEBRUARY 81
90140C - 92116C

ABSTRACTS

INDEXES

II - PATENTEE

V - BASIC NUMBER

VII - PATENT NUMBER

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	2 DEC - 8 DEC 80	883,592 - 883,707
-Non Delayed	1 DEC 80	884,695 - 884,813
-BTR	7 NOV + 14 NOV 80	T000,085 - T000,089
BRAZIL	2 DEC 80	7,903,311 - 8,006,064
CANADA	25 NOV 80	1,090,051 - 1,090,500
CZECHOSLOVAKIA	29 AUG 80	7,907,196 - 8,001,440
DENMARK	24 NOV 80	7,901,653 - 8,003,225
W. GERMANY		
-DAS	11 DEC 80	1,522,373 - 3,024,953
-OLS	11 DEC 80	2,850,347 - 3,021,618
EUROPE		
-Unexamined	10 DEC 80	19,615 - 20,320
-Granted	10 DEC 80	0,030 - 8,445
FRANCE*	3 OCT 80	2,450,555 - 2,451,151
	(BOPI 7 NOV 80)	
UNITED KINGDOM	17 DEC 80	1,581,431 - 1,581,820
		2,048,631 - 2,049,380
HUNGARY	28 NOV 80	H002,577 - H002,581
		T019,006 - T019,185
JAPAN		
-Unexamined	—	47,023,662 - 54,109,063
	1 NOV - 7 NOV 80	55,139,801 - 55,143,000
-Examined	20 NOV - 26 NOV 80	80,045,841 - 80,046,880
NETHERLANDS	1 DEC - 7 DEC 80	7,904,155 - 8,003,212
NORWAY	24 NOV 80	7,901,386 - 8,002,965
PORTUGAL	28 NOV 80	68,163 - 71,336
SOVIET UNION	—	639,127 - 733,703
SWEDEN	1 DEC 80	7,903,714 - 8,007,274
UNITED STATES		
-Reissues	2 DEC 80	Re30,440 - Re30,442
-Patents	2 DEC 80	4,236,257 - 4,237,556
SOUTH AFRICA**	NOVEMBER 80	7,801,843 - 8,002,816

*Printed patents actually published early November - mid November, 1980

**Includes numbered Basics from Week C43

Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

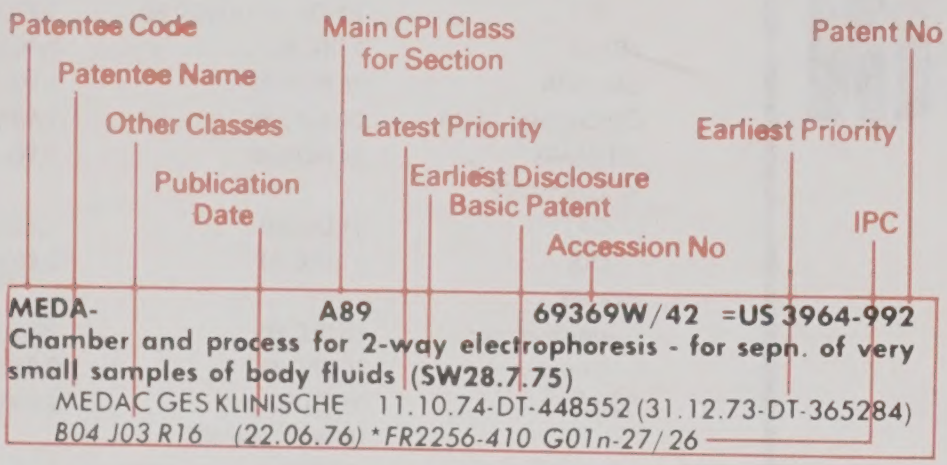
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
A+	Polymer Applns.	G	Printing, Coating, Photographic Chemistry
AE	Polymer & General Chemistry	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.



Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

DERWENT PATENTS SERVICES

1981 INSTRUCTION CLASSES QUESTIONNAIRE

It is proposed to hold a series of centralised or localised instruction classes in the period from June to November 1981 at locations which will be determined according to demand. A minimum of 5 participants will be required for each class.

The classes that will be offered are as follows:

Elementary A Coding (IC2)	*A two day course for new users of CPI Section A codes, covering basic principles and discussion of examples. Max. 20 participants.*
Elementary BCE Coding (IC3)	*A two day course for new users of CPI Sections BC & E codes with special reference to the New Chemical Code, again with discussion of examples. Max. 20 participants.*
Advanced A Coding (IC4)	*A two day course for those with previous training and experience of the CPI Section A codes. Max. 20 participants.*
Advanced BCE Coding (IC5)	*A two day course for those with previous training and experience of CPI Sections BC & E codes, with special reference to the New Chemical Code and coverage of complex examples. Max. 20 participants.*
Online User Instruction and General Overview (IC6)	*A one day course giving in-depth treatment of all access points except special coding, together with formulation of strategy and "hands-on" experience. A general overview of Derwent and its Patents products will also be given. Max. 20 participants.*
Advanced Online Searching (IC7)	*A one day course demonstrating the use of special coding concepts and other search parameters in the formulation of search logic to retrieve specific subjects or chemical structures. Max. 10 participants.*

Cost per person for these classes is: IC2 through IC5 and IC7 £50 or $120; IC6 £35 or $85.

Subscribers wishing to participate in these classes are requested to complete the questionnaire overleaf and **return it to Derwent not later than 31st March 1981.** A schedule will then be drawn up following analysis of the replies.

Request for User Aids

Instruction Manuals (£5, $12, ¥3000 each including postage).	No. sets required
No. 1 CPI/EPI GENERAL (INC ONLINE)	.....
No. 2 CPI/WPI COMPANY/MANUAL CODES	.....
No. 3 CPI CHEMICAL RETRIEVAL	.....
No. 4 PLASDOC RETRIEVAL	.....

Derwent Brochures (free of charge)	No. sets required
CPI	.....
WPI	.....
WPA	.....
EPI	.....
ONLINE	.....

Type of Instruction Required	Number of Participants
Elementary A Coding (IC2)	☐
Elementary BCE Coding (IC3)	☐
Advanced A Coding (IC4)	☐
Advanced BCE Coding (IC5)	☐
Online User Instruction and General Overview (IC6)	☐
Advanced Online Searching (IC7)	☐

Preferred Location(s) .....

Dates to be Avoided .....

Please write or type in BLOCK LETTERS

Your Name and Company

Name ..... Position ..... Department .....

Company .....

Address .....

Principal Contact ..... Telephone ..... Post Code .....

Signed ..... Telex .....

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D1: FOOD; FERMENTATION

D11 : BAKING

KEY/ ★ D11 90166 C/51 ★BE-884-330
nnamon cakes - made from milk, yeast, eggs, butter flour, sugar, nnamon and salt
DE KEYSER G 16.07.80-BE-884330
(17.11.80) A21d
sse cakes are made from 3 l milk, 250 g yeast, 10 eggs, tablespoons cinnamon, 500 g butter, 5 kg flour, 3 kg ugar and 100 g salt. The yeast is dissolved in the milk nd the eggs, cinnamon and half the flour added. The utter is added and the mixt.kneaded for 5 mins. The lt, remaining flour and finally the sugar are added and e mixt.kneaded to a smooth dough. 15 g portions of the ough are rolled in fine sugar and formed into flat cakes cm dia. The cakes are baked for 3-4 mins at 170 °C give 10 cm dia.cakes. 16.7.80 as 884330 (3pp513)

ND/ ★ D11 90174 C/51 ★BE-884-695
fg. dessert biscuits, ginger bread etc. in baking mould cavities - rmed by holes punched in spacing plate or band sandwiched etween mould blocks
RINDERLE K 08.08.79-DT-932156
(01.12.80) A21b A21c
rocess is of the type in which the raw paste is positioned oulded and baked between two halves of a mould which e brought together to enclose a mould cavity.
Moulding and baking take place with the two halves of e mould sepd.by a spacer in the form of a plate or con-nuous band sandwiched between the mould halves. Holes e punched through the spacer so that each hole is con-ined between mould halves. The outline of the hole rresponds to the required shape of the prod. The thick-ss of the prodlis proportional to the thickness of the pacer. While the prod.is still in its spacer hole after king the spacer can be advanced for sugar icing etc. be deposited on the prod. The moulded prod.can be a ste wafer which, after baking, receives a deposit of ixture for baking as ginger bread.
Used for mfg.dessert biscuits, wafers, waffles, gin-r bread etc. Process is more economical than punch-g out these prods. from edible sheets of paste from hich offcuts are wasted. Thickness control by changing pacer thickness. Punching operation is eliminated.
8.80 as 884695 (17pp448)

TY ★ D11 90203 C/51 ★CA 1090-193
eet baked goods prodn., gives enhanced sugar structure - nprises premixing sugars with water before addn. of other redients in dough prodn.
NABISCO INC 17.12.75-US-641676
(25.11.80) A21d-13
ough for producing non-perishable sweet baked goods n enhanced sugar structure developm ent is pred. by (a) ing water with sugar solids which form 16-21 wt.% of dough, ⩾ 70% of the sugar being sucrose; (b) forming a gh by combining this with flour and shortening, mixing until the ingredients appear to be uniformly distribut-mixing time and temp. and let-lay time before baking n being insufficient to allow much glutin developm ent, ouring sugar structure development. The wt. ratio of rtening to flour is 0.12:1 to 0.45:1; that of total water ugar solids is 1:1.4 to :2.6, and the total water tent of the dough is 6-14 wt.%.
The method is useful for making high protein prods. e.g. cuits or graham crackers, having a light texture char-ristic of high sugar compsns. The dough has a low wat content, reducing energy expenditure during baking.
9.76 as 261265 (31pp955)

ZENK/ ★ D11 C/51 ★CS 7909-121
Bread baking oven
ZENKA L 20.12.79-CS-009121
(29.08.80) A21b-01/02

SEEW- ★ D11 90322 C/51 ★DT 2922-703
Dough stretching frame - with lifting beam for handling dough sheet without drying
SEEWER MASCH AG 05.06.79-DT-922703
(11.12.80) A21c-03/02
A thin sheet of dough is produced from a rolled strip by clamping the strip edges on two tables and by moving the tables crosswise to stretch the belt to the desired width. A round beam along the centre line under the sheet is lifted up by hooks to let the sheet hang down from it on both sides.
This allows the dough sheet produced to be handled without requiring even a partial drying operation. The result is a saving in floor space and in apparatus.
5.6.79. as 922703 (13pp39)

AIRI- ★ D11 90429 C/51 ★DT 3019-798
Cracker baking machine - with air cylinders operating heated moulds
AIRIN KK 06.06.79-JA-070995
(11.12.80) A21b-05/02 A21d-13/08
Crackers are produced from rice or cereals by compressing and heating the raw material to 150°-180°C in an enclosed baking mould, followed by an instantaneous release. Steam produced by the heat is liberated and the expanded material is compressed once more to create a cracker with a self-supporting structure.
This process requires no binder and uses a simple machine which can be mfd. at low cost. 22.5.80. as 019798 (23pp39)

CHFW D11 88536 C/50 =EP--19-868
Activation of cereal grain for bread-making - by moistening and conditioning at low temp.
WERNER & MERTZ GMBH 29.05.79-DT-921682
*P41 (10.12.80) *DT2921-682 +A21d-02 A23l-01/10*
D/S: E(BE, CH, FL, FR, GB, IT, LU, NL, OE, SW)

Activation is carried out by moistening the whole grain and conditioning the moist grain at 10-20°C (pref. ⩽ 16°C, esp. ca. 14°C).
The process gives greater increases in activation rate (germ growth rate) and α-amylase activity than conventional processes with conditioning at elevated temp.
23.5.80 as 102870 (11pp367)
(G) ISR: DT2808652; DT1692752; DT2420910; DT2527945

AMBA- ★ D11 90680 C/51 ★EP--20-170
High ratio batter compsns. - contg. untreated wheat flour, sweetening, protein and unmodified starch
AMERI INST BAKING 04.06.79-US-045347
(10.12.80) A21d-02/18 A21d-10/04
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

High ratio batter compsn. contains: untreated wheat flour (I), a sweetening agent (II), protein (III) and an unmodified starch (IV). Amt. of (II) is relatively large in proportion to the amt. of (I). (III) is a protein from rye, soy, cottonseed, peanut, pea, egg white, milk, whey, wheat protein concentrate, or mixts.
Although the high ratio batter uses untreated wheat flour (hard or soft), cakes produced from it retain desirable organoleptic and other props. (shelf life, etc.).
2.6.80. as 301830 (20pp478).
(E) ISR: US3899601.

BOUT/ ★ D11 90775 C/51 ★FR 2451-013
Controlled rate proving chamber for dough pieces in bakeries - heated by structural panel fitted with electric resistance heating element
BOUTON M H R 05.03.79-FR-005640
X25 Q77 (07.11.80) A21c-13 F27b-17 F27d-11/02 H05b-03/22
Structural heating panel and a controlled temp. chamber which is constructed, at least in part, from such panels. Each heating panel has an internal wall, i.e. the wall adjacent the chamber space, made of material of high thermal conductivity. Within the panel, this wall is in contact with an electric resistance heating element which extends over most of the wall area.

Electric element is pref. composed of several sections which can be electrically isolated independently so that one or any combination of sections can be used. The space between the element and the outer wall of the panel is pref. packed with non-flammable, thermal insulating material such as polyurethane foam.

Used in construction of controllably heated chambers partic. for the food indusry and esp. for controlled rate proving for bread dough pieces in bakeries. Much more uniform heating throughout chamber space than with warn air circulation heating. No problem with condensate on chamber walls which are now the source of heat.
5.3.79 as005640 (11pp448)

MULT- ★ D11 92044 C/51 ★US 4237-1
High fibre content white bread - contg. field pea hull fibres specified particle size
MULTIMARQUES INC 03.12.79-US-099982 (28.12.76-US-75502
(02.12.80) A21d-02/36
High fibre white bread is prepd. with a compsn. contg. 100 pts. wheat flour and 5-20 pts. field pea hull fibres which pass a 20 mesh screen but are retained on an 80 mesh screen, and may be derived from yellow peas, green peas or both. Also claimed is a dry mix contg. 10 pts. flour, 5-20 pts. pea hull fibres, 1-10pts. sugar and leavening agent. 3.12.79 as 099982 (29.6.78-US-920387 (7pp955).

BLAU/ ★ D11 M3075 C/51 ★ZA 7806-2
Baking oven for biscuits - has multiple runs of conveyor in enclosu heated by gas at base and electricity at top
BLAU Z 06.11.78-ZA-006236
X25 (06.08.80) A21b H05b

See Also

D16 J8 0046707

D12: MEAT; FISH PROCESSING

UNIC ★ D12 90143 C/51 ★BE-883-600
Machine to fill tubular sausage casings from collapsed concertina form - automatically switches off filling supply if drop in casing pressure is detected
UNION CARBIDE CORP 04.06.79-US-045318
T06 X25 (02.12.80) A22c G05b
Filling is carried out with a viscous paste such as sausage meat. The machine is of the type which cuts out automatically if the filling pressure drops below a predetermined value which corresponds to a ruptured casing or other faulty filling condition.

Improvement is that the appts. comprises a detector for sensing the fluid pressure within the casing as filling takes place. The detector is connected to a signal generator which emits signals corresp. to filling pressures. The signals operate an automatic controller which responds by actuating machine elements, partic. to terminate the flow of filling paste when a pressure drop is detected.

Used to stop the filling process of a sausage filling machine if a leak appears in the casing. Immediate cut-off of sausage meat supply prevents waste of meat, obviates cleaning of machine and reduces machine down time.
2.6.80 as 883600 (23pp448)

NMHB ★ D12 90223 C/51 ★DS 3024-953
Fish alignment device - using spring-loaded flap for right angle turn from vertical
NORDISCH MASCH R BAADER 02.07.80-DT-024953
(11.12.80) A22c-25/12
A vertical position of fish is best for certain operations such as heading but subsequent operations such as filleting are best done in the horizontal position. This turning through 90° is done automatically by a springloaded flap below the pairs of divergent lateral drive belts which delays the suspended part of the fish and transfers it to the next conveyor horizontally.

The fish arrives in the direction of the arrow, suspended vertically with the tail down between the lateral drive belts with the flights. Rollers are urged by a spring against the flanks of the fish.

This simple device requires a minimum of space and is suitable for fish of bigger sizes. 2.7.80 as 024953 (4pp)

SOMM/ ★ D12 90323 C/51 ★DT 2922-71
Meat salting machine - with two pairs of rollers spiked with hollo needles and yielding slide rails
SOMMER H 05.06.79-DT-922714
(11.12.80) A23b-04/02
A machine for the injection of brine into pieces of meat to be salted consists of two pairs of rollers, spiked with injection needles. Parallel rails are arranged between the planes of the needles and are supported by spring-loaded columns at each end. A belt conveyor charges the pieces of meat into the gap between the rollers.

This machine distributes the brine quickly and uniformly, and with a minimum of spillage. The tenderising cutters of conventional devices are not necessary.
5.6.79. as 922714 (14pp39)

FARH ★ D12 90357 C/51 ★DT 2923-1
Section of tubular packaging sleeve - esp. sausage casin comprises heat-shrinking synthetic film with aluminium wire clip
HOECHST AG 08.06.79-DT-923186
A92 Q32 (11.12.80) B65d-33/30
The gathered-together end of a tubular, thermoplastic, heat-shrinking packaging film, such as polyethyleneterephthalate, is claipped by a metal clamp. The zone put under compression by the Al wire clip is subjected to thermo-mechanical treatment, and densified so that an impermeable seal is made.

The film has a heat-shrinking capacity of 20%. Heating is effected by electrical induction and the densified seal is cooled afterwards. The process is applicable partic. to the packaging of sausage meat, and a seal is obtd. which is impermeable to fluids or gases. 8.6.79. as 923186 (15pp1045)

GENM ★ D12 90468 C/51 ★DT 3020-67
Frozen fish block slicing machine - with adjustable table an horizontal cutter blade motion
GENERAL MILLS INC 31.05.79-US-043978
(11.12.80) A22c-25/18
A machine for cutting slices off frozen blocks of fish consists of a line of parallel vertical tubes to suit the block cross-section. A work table is vertically adjustable below this magazine to adjust the thickness of the slices as a cutter blade is moved in the horizontal plane at an angle of 30° to the line of blocks. Sliders under each tube carry the slices to a support on which they rest.

is permits slices of any desired thickness to be cut rmly with a minimum of waste. The dust created by has been eliminated. This robust and reliable ma- e has a great capacity. 30.5.80. as 020671(43pp39)

- D12 86556 C/49 =EP--19-711
nittent sausage skin filling - adjusting cut/off depending on un during deceleration period
MAG MERDENER MASC 26.05.79-DT-921427
6 *(10.12.80) *DT2921-427 A22c-11/02*
: E(CH, FL, FR, IT).

age meat is filled into skins or containers intermittent- preset portions, followed by a stoppage to allow the ious skin or container to be closed before the next cycle ns. The amount of overrun of the quantity of sausage t which still passes into the previous portion during leration prior to a stop is determined and the difference een the desired portion and the overrun is calculated. machine is then set to start decelerating when this rence has been reached.
This ensures that the set portion is dispensed over long ods of time, independent of fluctuations of load, temp. speed.
.80 as 101951 (23pp39).
ISR:-EP--13552; DT224970; US3207368; CH-442125; 999270.

M/ D12 84670 C/48 =EP--19-810
n press - with shaped inserts for ratchet bars actuated by sausage fing machine
KOLMEL P 18.05.79-DT-920048
*10.12.80) *DT2920-048 A22c-07*
6: E(BE, CH, FL, FR, GB, NL)

ess for boiled and smoked ham or pieces of salted meat sists of a base with two uprights carrying ratchet bars. erts of round or square shape are laid in to enclose lump of meat. A top piece with springloaded pawls he sides, to engage in the ratchet bars, is laid on the insert. The pressure is applied by the cylinder of a ventional sausage stuffing machine.
This creates a simple attachment which can be used m in small butchers' shops.
5.80 as 102719 (7pp39)
ISR: FR2076571; US1935015; GB-292735; US1792411; 271402; DT2006709; GB-875182; GB1439144.

- D12 85615 C/48 =EP--19-957
matic stunning of animals for slaughter - by spring-loaded rrodes fitted with shock dampers ensuring good contact
ACH NIJHUIS BV 10.05.79-NL-003678
*25 (10.12.80) *NL7903-678 A22b-03/06*
E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW)

plant for stunning animals for slaughter, esp. pigs, spring which returns the swinging electrodes to their ting position is fitted with a damping cylinder. The k dampers of a number of stations may be connected n accumulator. The arrangement consists of a frame two endless belts inclined to form a "V"-shaped age for the animal.
he damping cylinders hold the electrodes positioned behind the other in the lengthways direction, in con- with the head of the animal in spite of evasive tactics. gh throughput of carcasses is thus ensured.
0 as 200419 (6pp1014)
SR: NL7705519; FR2390903.

- D12 81862 A/45 =GB 1581-635
ing poultry carcass on conveyor - by loading carcasses at ent stations depending on grade
UTOSYSTEMS LTD 07.09.76-GB-036952
*3 (17.12.80) *US4122-953 B07c-07 + B07c-05*
les on a conveyor are associated with at least 2 grad- a sensor which emits a signal typical of the grade of le passing. The conveyor has at least 2 feed stations, les of one grade being feed at one, and then articles other grade being fed into the same path at the sec- The signal can pref. be used to control further treat- ment of articles.
Grading of poultry carcasses can be in one operation. 31.8.77 (8pp1376).

ELEL- ★ D12 C/51 ★HU T019-024
Poultry processing in automatic appts. - including plucking and eviscerating stations on connected conveyors
ELELMEZESIPARI TERV 21.11.78-HU-EE2603
(28.11.80) A22c-21/06

TAKE ★ D12 91055 C/51 ★J5 5141-177
Meat treating agent comprising cereal embryo and ascorbic acid cpd. - promotes colour development and prevents colour fading
TAKEDA CHEMICAL IND KK 23.04.79-JA-050549
E13 (04.11.80) A23l-01/31
The agent contains the embryo of cereals and ascorbic acid analogues. Fish meat or animal meat previously treated with the agent shows uniform vivid colour and is glossy. When it is used with colour-developer, the colour developing time can be shortened. The treated meat suffers little from fading and browning or blackening which have often been observed when using ascorbic acid as preservative, during preservation.
Cereals rice embryo and wheat embryo are pref. used Pref. the raw embryo is pre-pulverised and wt. ratio of the embryo powder and ascorbic acid analogue (e.g. ascorbic acid, its salt, erythorbic acid, its salt, etc.) is 1:0.01-100 pref. 1:0.05-50. The meat is treated with cpds. separately or together and usually the embryo is added to the meat in an amt. > 0.01 w/w%. The treatment is effected by mixing, immersing, injecting, sprinkling or spraying. The mixing method is used in processing meat material for sausages, ham, pasty foods, etc.
23.4.79 as 050549 (6pp5)

FISK- ★ D12 C/51 ★NO 7901-459
Sepn. method and device for fish roe
FISKERITEKNOLOGISK 30.04.79-NO-001459
(24.11.80) A22c

SEMI= ★ D12 91620 C/51 ★SU-731-942
Conveyor for transporting trolleys contg. loads, e.g. meat carcasses - has synchronising mechanism equipped with return arm and stop separator comprising ratchet and pawl
SEMIPALATINSK BR 18.07.78-SU-644282
Q35 (05.05.80) A22b-07 B65g-17/20
Conveyor for transporting loads hanging from trolleys, e.g. meat carcasses, comprises an accumulation track, traction chain with pushers, stop-separator and synchroniser. Holding reliability for the loaded trolleys on the accumulation track is increased by fitting the synchroniser with a return arm. The stop-separator consists of a ratchet and pawl.
Gotvit, A. N., Frezogrer, A. D., Bul. 17/5.5.80. 18.7.78. as 644282(2pp29).

ANTI/ ★ D12 91621 C/51 ★SU-731-943
Washing, conveying and cleaning device for fish - has rotating lever below conveyor strip which carries scraper and which removes water from fish
ANTIPOV N N 11.12.78-SU-696534
(05.05.80) A22c-25/02
Fish washer is used in factories which prepare tinned fish It has conveyor with mesh strip and bars plus water sprayers. The drops of water are sepd from the surfaces of the fish and the conveyor is cleaned by placing a double armed lever underneath the working arm of the conveyor. One arm is provided with a scraper to clean the conveyor strip, and the other has a counterweight to keep the scraper in contact with the conveyor. A tongue is fastened to the lever in such a way that its free end comes into contact with the bars as the conveyor moves along.
Antipov, N. N., Bul. 17/5.5.80. 11.12.79. as696534(2pp).

FARE= ★ D12 91622 C/51 ★SU-731-944
Fish intestines removal plant - has clock pulse distributor connected to memory controlling logic circuitry of electromagnetic valves for water nozzles
FAR E POLY 14.12.76-SU-429619
T06 X25 (05.05.80) A22c-25/14
Earlier appts for removing intestines of fish in the fishing industry contains a conveyor fitted with blades, hydro-heads with nozzles and a fish size sensor. For better prepn of fish, a clock sensor is connected via a pulse distributor to a memory and the nozzles are provided with electromagnetic valves controlled by the memory via logic circuits. Fish are now directed under the requisite nozzle to save on use of quality control appts.. (4pp840).

EKDA/ ★ D12 C/51 ★SW 7903-732
Curved cylinder attached to slaughtering knife - contains piston activated by fluid to provide suction for flood withdrawal during killing process
EKDAHL P A 27.04.79-SW-003732
(01.12.80) A22b-03/10
The slaughterman's knife is of conventional form, but its handle is permanently connected to a suction tube for withdrawal of blood from the animal being killed. The knife is also connected to a curved cylinder in which is a movable piston.
The piston moves under the effect of a fluid fed into the cylinder via at least one tube connection, and its rod emerging from the cylinder end has a point to engage the animal's body. 27.4.79 as 003732 (1pp1161)

NMHB D12 22154 B/12 #US 4236-275
Fish filleting machine - saves topping operation by rib cutters producing inclined cut
NORDISCH MASCH R BAADER 22.07.78-DT-832329 (06.12.78-US-966815)
*(02.12.80) *DS2832-329 A22c-25/16*
Fish are filleted by conveying the fish tail first through knives which form belly and back filleting cuts, and rib cuts. The fillets are then severed from the bones by displacing the rib knives perpendicular to their cutting planes to cut the fish at the collar bones. The head remains with the skeleton.
Pref. each rib cut consists of an arcuate cut starting at the end of the abdominal cavity and a straight cut above one of the ribs. Fish can be filleted with little waste. 6.12.78 as 966815 (4pp1376).

NESH- ★ D12 91873 C/51 ★US 4236-276
Clam shucking by cooling shell in liquid nitrogen - then immediately heating in gas flame then drum tumbling
NORTHEAST SHIPLEY 03.02.77-US-765522
(02.12.80) A22c-29/04
Liq. nitrogen is directed onto the shells of clams to co them but the nitrogen does not freeze the clam flesh. Immediately after the cooling operation the clams are passed through a gas flame to provide a heat shock and cause the shells to open.
Pref. the opened shells are then tumbled in a drum the meat separated from the shell by floatation. Pref. gas flame is directed onto both shells simultaneously.
The appts. opens the shells of bivalve mollusks esp. clams. 3.2.77 as 765522 (7pp295).

AMFA- ★ D12 91874 C/51 ★US 4236
Shelling crab legs between counter-rotating rollers - with ver axes fed by cupped turret wheel
AMFAC FOODS INC 14.05.79-US-038459
(02.12.80) A22c-29/02
Crab legs are loaded into cups which project radially fr a vertical turret wheel. A pair of rollers are counter-rotated about vertical axes and located at the 9 o'clock position to receive crab legs which are ejected from the cups by a water jet directed onto the radially inner wall each cup. The rollers draw the shell through the nip while the meat falls down the upstream side of the rolle and enters a discharge chute.
Pref. the rollers have an elastomeric surface and pr one of the rollers has a resilient mount which urges the rollers together.
The appts. removes the meat from crustaceans esp. crab legs. The use of vertical pressure rollers allows the removed meat to fall clear of the rollers without bei damaged by passing through the nip. 14.5.79 as 038459 (9pp295).

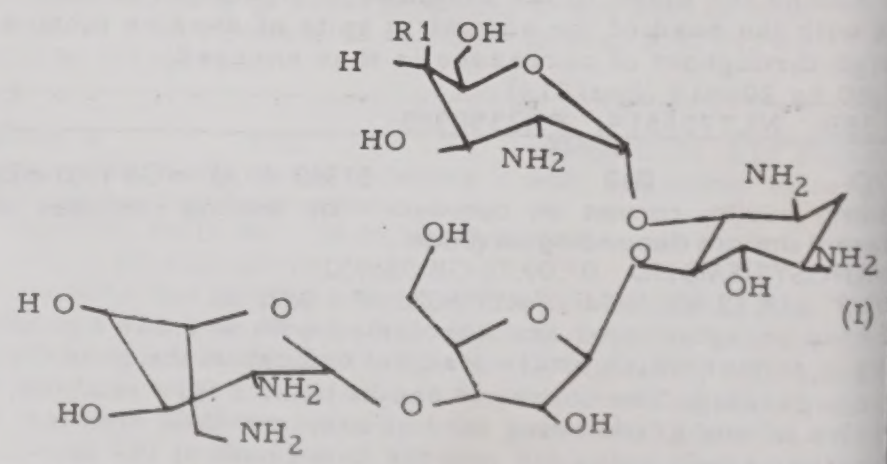
MCCU/ ★ D12 91904 C/51 ★US 4236-
Annular rotating blade holder for meat cutter tool - with pla mounting lugs moulded onto metal ring in holder
MCCULLOUGH T J 30.07.79-US-061593
P62 (02.12.80) A22c-17/12 B26b-15
The rotating blade of a meat-cutting tool is supported in housing which is removably attached to the distal end of the tool. The housing comprises a metal ring slit at on point on its periphery and receiving the blade. A pair arcuately extending flanges project from each side of th split and serve as a base for supporting plastic mountin lugs which are moulded round the flanges. A radially ex tending hole is formed in the plastic of each lug and re-ceives a screw for attaching the housing to the tool. A semicircular recess is provided in the plastic to accept the drive gear of the tool to enable it to rotate the blade.
The tool is used to trim meat. The use of a composi metal and plastic housing instead of an all metal housin reduces the cost of manufacture. 30.7.79 as 061593 (8)

See Also

D16 EP --20097	D16 GB 1581643	D16 HU T0190
D16 HU T019116	D16 J8 0046706	D16 SU 731935
D16 US 4236349	D16 US 4237233	D17 EP --200
D22 DT 2921716	D23 SU 731951	D24 DS 290701

D13: OTHER FOODSTUFFS

FARM ★ D13 90156 C/51 ★BE-883-686
Desoxy paromomycin derivs. - are antibacterials and antiprotozoal agents with less susceptibility to inactivation than paromycin itself
FARMITA C ERBA SPA 07.06.79-GB-019778
B02 C02 (08.12.80) A61k C07d C07h
Paromomycin derivs, of formula (I) and their salts are new. In (I)



(I)

R_1 is H or Cl.

Cpds.(I) antibacterial agents active against gram pos-
e and negative bacteria, and antiprotozoal agents. Cpd.
of partic.use in the treatment of amoebic dysentry,
gellosis, and salmonellosis. They may also be used in
imal feed supplements. Cpd.(I) is less liable to be in-
ivated than is paromomycin itself. 6.6.80 as 883686
pp520)

BI/ ★ D13 C/51 ★CS 7907-516
ifungal protection of surface of edible products
SUBIK J 05.11.79-CS-007516
(29.08.80) A23l-03/34

WA/ D13 75253 U/49 #DS 2356-879
ato sugar leaching - by rapid freezing
HOWARD H H (HOW /) 31.08.71-US-176539 (14.11.73-DT-356879)
*(11.12.80) *US3774-524 +A23b-07/04 A23n-15*

od such as potatoes, vegetables, meat or fish are
iefly frozen in a closed cabinet in which a conveyor takes
food first through an insulated chamber with a liq. re-
gerant into which the food is dipped. A partition sepa-
tes it from a second chamber where the food is heated
evaporate any adhering refrigerant which is then con-
nsed and recycled.
This eliminates the losses of refrigerant. If applied to
tato chips before they are fried, it gives them a very
ractive light brown appearance and removes the dark
ots. 14.11.73 as 356879 (9pp39).

TE D13 36310 Y/21 =DS 2602-454
ixing of granular materials with treatment liquids - by spraying
borne particules, then sepg. from gas stream using counter-
rrent flow
PETERS C AG (LUCO-) 23.01.76-DT-602454
*C03 J04 +P42 (J02) (11.12.80) *BE-850-555 B01j-08/24*
opts. for the treatment of powdery or granular materials
ith a liq., for example a washing powder with a detergent
milk fat with skimmed milk or in the prodn. of instant
coa drinks, baby food or dyes, is a cylindrical container
th an inlet for the solid powder in the top centre. The
.. is injected through spray nozzles in the top. Space
the descending solids is created by a cylindrical wall
ich defines an annulus for the extn. of the gas by suction.
angential air inlet is provided at the lower end of the
indrical wall, in addn. to an air inlet at the top and
ar the bottom of the container.
This ensures a uniform wetting of the powdery solids
a higher quality of the prod. 23.1.76 as 602454 (7pp)

L D13 06001 B/03 =DS 2835-387
bilised red beet dye compsns. - contg. an ascorbic acid deriv.
d sodium hexa:metaphosphate stabilisers
INT FLAVORS & FRAGR INC 15.08.77-US-824769
*E24 (11.12.80) *US4132-793 A23l-01/27*

ble red dye (I) is based on red beetroot dye, and a
bilising cpd. based on ascorbic acid (II).
(I) comprises (a) extract(III) of red beetroot, (b) (II),
ium ascorbate or isoascorbic acid [15-30 pts. wt.
ed on 100 pts. wt. of a 68° Brix (III)], and (c) sodium
ametaphosphate [10-30 pts. wt. based on 100 pts. wt.
68° Brix (III)]. Pref. (I) also contains, as further
biliser, (d) ethylenediamine tetraacetic acid (or its
s); and pref. also (e) a caramel dye.
(I) is useful for dyeing colourless foodstuffs. 12.8.78
335387 (22pp481).

K ★ D13 90238 C/51 ★DT 2921-213
wth promoting animal feed - contg. a combination of acid
ease and neutral to alkaline protease
HENKEL KG AUF AKTIEN 25.05.79-DT-921213
C03 (11.12.80) A23k-01

- animal feed mixtures based on carbohydrates, pro-
, fats and, optionally, usual additives, contain (a)
east on acidic protease with an active range of pH
-6.5 in an amount such that the enzymatic activity of
feed mixture is 0.05-2.5 (pref. 0.1-0.5)mTU/g and
at least one neutral to alkaline protease with an active range of pH 7.0-12.5 in an amount such that the enzymatic activity of the feed mixture is 0.1-50 (pref. 1-25)PU/g.

The enzymes exert a growth-promoting effect, giving improved animal growth rate and/or feed efficiency. The improvement is up to 4% greater than that obtained with animal feeds contg. only one enzyme, or an antibiotic growth promotant. 25.5.79. as 921213 (16pp280)

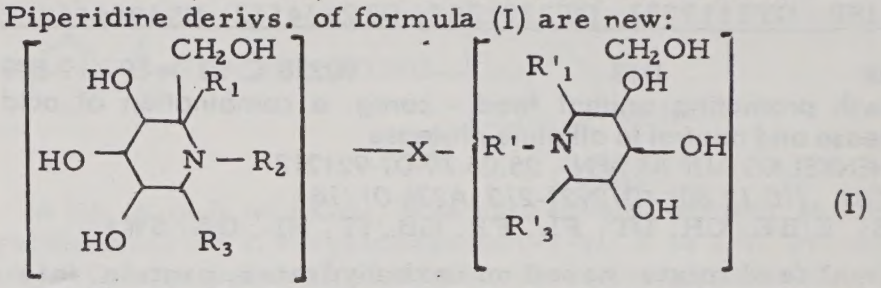
LAUF/ ★ D13 90260 C/51 ★DT 2921-706
Low oxygen gas preservation for food - replacing air in container by protective gas
LAUFENBERG J 29.05.79-DT-921706
(11.12.80) A23l-03/16

Food is given a preservation treatment in a chamber where a protective gas or steam is introduced to replace the air. Outlet and/or inlet valves for the circuitare controlled in such a way that the flow is regulated as a function of pressure, quantity, time and/or temperature.

This system can be easily adjusted for different types of food and can accommodate to a wide variety of sizes. Its operation can be fully or semi-automatic and it requires little maintenance. 29.5.79. as 921706 (77pp39)

FARB ★ D13 90331 C/51 ★DT 2922-760
Bis:tri:hydroxy-piperidinyl alkane derivs. - inhibitors of alpha glucosidase(s) useful e.g. in treating diabetes and as animal feed additives
BAYER AG 05.06.79-DT-922760
B03 C02 (11.12.80) A23k-01 A61k-31/44 C07d-211/40

Piperidine derivs. of formula (I) are new:



(I)

In (I), R_1, R'_1, R_3 and R'_3 are each H or direct bond to X; R_2 and R'_2 are each H, 1-4C alkyl or direct bond to X, but only one R substit. in each ring is a bond to X; and X is a bridging gp.

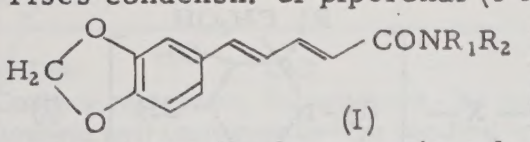
Pref. X is $-(A)_m-(R_4)_n-(Y)_p-(R_5)_q-(B)_r-$

A and B = CH_2 when X is attached via R_2/R'_2 or are CH_2NHCO, CH_2NHSO_2, CH_2NHCOO, $CH_2NHCONH$ when X is attached via R_1, $R'_1/R3$, R'_3. R_4 and R_5 = 1-18C alkylidene, 2-18C alkenylidene or phenylene. Y is O, SO_2, CO, CH_2, S, SO, NH, CONH, NHCONH, NHOSNH, SO_2NH or CH=CH; and m and n = 1 and 4; and p and q are each 0 or 1. (I) are prepd. e.g. by reacting $Z(CHO)_2$ with the appropriate aminoethy-substd. trihydroxy-piperidine.

(I) are inhibitors of α-glucosidases, esp. disaccharidses, are esp. useful for treating diabetes, hyperlipidaemia and adiposity. They are also useful as animal feed additives to improve feed utilisation and the lean/fat ratio. 5.6.79. as 922760 (64pp1251)

HAAR D13 45730 B/25 =EP G002-735
Piperonylidene-crotonamide derivs. prodn. - by reacting piperonal with crotonic acid cpds. in presence of alkali hydroxide and dipolar solvent
HAARMANN & REIMER GMBH 22.12.77-DT-757506
*B02 C02 E13 (10.12.80) *DS2757-506 C07d-317/60 C07d-405/10*
D/S: E(CA,DT,FR,GB,IT,NL)

Prepn. of piperonylidenecrotonamides of formula (I) comprises condensn. of piperonal (1 mole) with crotonamides of



(I)

of formula $MeCH{=}CHCONR_1R_2$ (1.1 mole) in the presence of an alkali metal hydroxide (0.05-0.5 mole) and an inert dipolar aprotic solvent.

Suitable solvents are dialkylformamides, dialkylacetamides, 1-methyl-2-pyrrolidone, tetraalkylureas, dialkyl sulphoxides, sulphones, hexalkylphosphorotriamides, and 1-methyl-1-oxophospholine, esp. Me_2SO.

Prods. may be useful e.g. as the sharp principle of black pepper, and may be used as spices; they may be useful as additives to germicidal compsns.; as insecticide (synergists); and as an analeptic for morphine or barbiturate poisoning. 14.12.78 as 101676 (8pp047) (G).

HOWA/ ★ D13 90520 C/51 ★EP--19-675
Dry compsns. for making savoury beverages - contg. dry proteinaceous materials, adjuvants, and sub-effervescent amt. of a gas-former
HOWARD A N 01.06.79-EP-301044
(10.12.80) A23I-01/30 A23I-02/38
D/S: E(BE, CH, DT, FR, IT, LU, NL, SW).

Dry powder or tablet compsns. for dissolution in aq. ingestible liqs. to give savoury beverages contain: 5-90% (of total compsn. wt.) of dry proteinaceous material (I), a gas-former (II), and opt. other non-proteinaceous adjuvants. Amt. of (II) is sub-effervescent but is sufficient to facilitate disintegration, dispersion, and dissolution of (I).

Acids used to clean Fe, Cu, Ni, Cr, Co, Zn and their alloys can be regenerated, and discharge of metal-contg. waste water is avoided.

Inclusion of sub-effervescent amts. of (II) in the compsn. greatly enhances its speed of disintegration and subsequent dispersion and dissolution to afford an excellent savoury beverage. The compsns. have a very low calorie content, and are esp. useful in low calorie diets.

1.6.79. as 301044 (33pp478).
(E) ISR: DT2117772; DT2202267; DT2434112; US3914457.

HENK D13 90238 C/51 =EP--19-809
Growth promoting animal feed - contg. a combination of acid protease and neutral to alkaline protease
HENKEL KG AUF AKTIEN 25.05.79-DT-921213
*C03 (10.12.80) *DT2921-213 A23k-01/16*
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW)

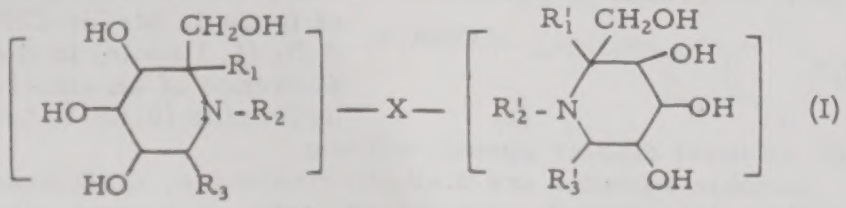
Animal feed mixts. based on carbohydrates, protein, fats and, opt., usual additives, contain (a) at least one acidic protease with an active range of pH 2.5-6.5 in an amt. such that the enzymatic activity of the feed mixt. is 0.05-2.5 (pref. 0.1-0.5) mTU/g, and (b) at lease one neutral to alkaline protease with an active range of pH 7.0-12.5 in an amt. such that the enzymatic activity of the feed mixt. is 0.1-50 (pref. 1-25) PU/g.

The enzymes exert a growth-promoting effect, giving improved animal growth rate and/or feed efficiency. The improvement is up to 4% greater than that obtd. with animal feeds contg. only one enzyme, or an antibiotic growth promotant.

16.5.80 as 102709 (21pp280)
(G) ISR: FR2338653; DT2633105; DT2633106; DT2653480; DT2728850; DT2751902; DT2528490; DT2225363; US2878123; GB-826033; FR1392752; US3086912; US2925342; DS1767852; FR1383733; DS1073845; DS1097246; NL7811789; DT2755126; DT2802397; DT2802398; DT2753309; DT2802396; DT2831306; 5 Journal references.

FARB D13 90331 C/51 =EP--19-899
Bis:tri:hydroxy-piperidinyl alkane derivs. - inhibitors of alpha glucosidase(s) useful e.g. in treating diabetes and as animal feed additives
BAYER AG 05.06.79-DT-922760
*B03 C02 (10.12.80) *DT2922-760 A23k-01/16 A61k-31/44 C07d-211/46*
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW)

Piperidine derivs. of formula (I) are new:



(I)

(R_1, R'_1, R_3 and R'_3 are each H or direct bond to X; R_2 and R'_2 are each H, 1-4C alkyl or a direct bond to X, but only one R substit. in each ring is a bond to X; and X is a bridging gp.).
Pref. X is

$$-(A)_m-(R_4)_n-(Y)_p-(R_5)_q-(B)_r-$$

(A and B = CH_2 when X is attached via R_2/R'_2 or are CH_2NHCO, CH_2NHSO_2, CH_2NHCOO, $CH_2NHCONH$ when X is attached via $R_1, R'_1/R_3, R'_3$;
R_4 and R_5 = 1-18C alkylidene, 2-18C alkenylidene or phenylene;
Y is O, SO_2, CO, CH_2, S, SO, NH, CONH, NHCONH, NHCSNH, SO_2NH or CH=CH;
m and n = 1 and 4; and
p and q are each 0 or 1).
27.5.80 as 102943 (82pp1251)
(G) ISR: EP----947.

WIEN/ ★ D13 90576 C/51 ★EP--19-91
Instant food mfr. - from biological products by shredding, cookin infrared and microwave radiation
WIENECKE F 21.01.80-DT-002002 (30.05.79-DT-921936)
*X25 (10.12.80) A23I-01/**
D/S: E(BE, CH, DT, FL, FR, GB, NL, OE, SW).

Flakes, chips, fingers or cubes of instant food are prepared from biological products with a loose and coarse cellular structure such as potatoes or bananas. The material is shredded and briefly boiled to hydrolyze the layers near the surface. In a following tunnel, the shreds are loosened and dilated by exposure to a microwave, or infrared wave field in a tunnel. The final operation is drying.

The pretreatment ensures that the shreds become blown up and dilated during the radiation treatment.

29.5.80 as 102996 (17pp39)
(G) ISR: DT2850401; GB1344125.

ADAM- ★ D13 90612 C/51 ★EP--20-0
Packaged shelled hard-boiled eggs - treated to lower pH interface of white and yolk to reduce discolouration
ADAMS EGG PROD LTD 25.04.79-GB-014353
P14 (10.12.80) A01k-43 A23b-05
D/S: E(DT, FR, GB, IT, NL).

Fresh eggs are cooked until hardboiled and are then shel ed. The shelled eggs are immersed in an acid solution (pref. a 0.5-10% w/w of citric acid) to reduce the pH at t interface between the white and yolk. Finally the eggs a packaged in a hermetically sealed container which is sea ed and sterilised by heat treatment.

Pref. the eggs are preheated prior to boiling to reduc the tendency of the shells to split. Pref. the eggs are packaged while still in a moist condition.

The process preserves eggs. The acid treatment inhibits the formation of a dark colouration round the yolk during storage.

22.4.80 as 301285 (14pp295).
(E) ISR: ——

BALS/ D13 90114 C/50 =EP--20-2
Agglomeration of materials with animal blood - by heating ar agitating to form homogeneous curdled mass
BALSSE C 24.07.79-FR-019047 (16.05.79-FR-012397)
*C03 (C04) (10.12.80) *WP8002-557 C05f-01*
D/S: E(BE, CH, DT, FL, GB, IT, LU, NL, SW).

Agglomeration of liq. and/or solid materials is carried out by mixing the material with liq. animal blood (or pla ma or serum) and heating to boiling while slowly agitatir until a homogeneous curdled mass free of liq. phase is obtained.

The products can be used as animal feeds, food additives, fertilisers, soil improvers, etc. The process can also be used to facilitate disposal of abattoir effluents b incineration.

16.5.80 as 400686 (60pp367).
(F) ISR: FR2400328; FR1382451; GB1153135; DS-128317; FR-350637; GB-938583; GB1483150; FR-535371.

/ ★ D13 90739 C/51 ★FR 2450-564
ing machine to coat food prods. with edible jelly - supplies liq. from thermostatically controlled reservoir pref. beneath yor band
ANISSOL J P 09.03.79-FR-006168
7.11.80) A23b-04/10
orated conveyor band carries the prod. under a distor which pours a curtain of liq. jelly over the prod. distributor comprises a slotted channel which is sup continuously with liq. jelly from a thermostatically olled reservoir. The conveyor band carries the ed prod. through a cooling tunnel.
he enrobing machine pref. comprises at least three bing distributors each followed by a cooling tunnel. reservoir is pref. located in the base of the machine, r the band, and liq. jelly is pumped up to the distrir to be poured out of adjustable slots. The reservoir hes surplus jelly which passes through perforations in band. The distributor channel is pref. fitted with an flow into a return pipe to the reservoir.
sed for coating food prods. with edible jelly, partic. ing Hams, Paté and other meat prods. Manual glazis eliminated with consequent saving of labour. The ing is carried out much faster and more consistently. 79 as006168 (12pp448)

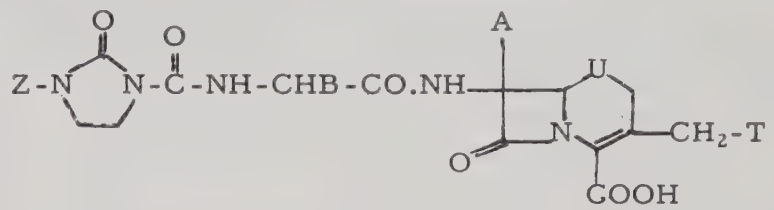
F/ ★ D13 90740 C/51 ★FR 2450-565
choke leaves and stalk processed as preserved food prod. - by hing, cutting, fibre removal and rapid deep freezing as pulp ets
AUFFRET H 08.03.79-FR-006909
07.11.80) A23b-07/04
r cooking the whole artichoke and peeling away the es in the normal manner, the leaves and stalk are ually sepd.
ually sepd. from edible flesh.
The leaves and stalk are washed and then cut into ll pieces. These pieces comprise a pulp attached to ments of fibre.
a mechanical separator or centrifuge is employed to inate the fibre, leaving a pulp having a chemical com sition and texture similar to that of the edible flesh of rtichoke. The pulp is automatically transferred to a freezer, pref. a continuous freezing tunnel at -40°C. pulp is pref. formed as pellets which are frozen t through in less than ten minutes.
sed in prodn. of a frozen food prod. similar to choke edible flesh. 8.3.79 as 006909 (448)

P/ ★ D13 90741 C/51 ★FR 2450-567
cn of lactoserum to remove protein and lactose - by ulation and fermentation with pH control at each stage
AUPAS J Y P 05.03.79-FR-006305
03 (D16) (07.11.80) A23c-21 A23k-01/08
process and appts. employs successive chemical s. to modify the pH at each stage.
he pH is pref. reduced to preserve the lactoxerum - microbial activity, esp. using H_2SO_4 to about pH3 addn. of ammonial to the flocculation pH at 4.7
type fermenter is pref. used with a gas-liquid mixer prising 2 parallel discs of different dis. meters sepd. stance pieces. The gas is fed under the wider disc g. orifices to accelerate the speed and the liquid be fed between the discs. The level in the fermenter is constant. by a controlled emptying valve. The fermen on is pref. continuously controlled by pH, biomass me and nitrogen feed to ensure good yeast/cell growth. 30 as 006305 (7pp597)

D- ★ D13 90757 C/51 ★FR 2450-808
ing of essential amino acids with maleic or citraconic dride - comprises prepn. of a soln. of aminoacid, buffering g anhydride and alkali then adding further aminoacid and ting
UTH AFR WOOL BOAR 08.03.79-ZA-001083
3 (07.11.80) A23k-01/18 A23l-01/16 C07c-101 C07c-149/23
ess for blocking essential aminoacids with a maleyl raconyl-type blocking radical comprises:- (a) preparing a satd. soln. of the aminoacid in water; (b) buffering the soln. at pH 8; (c) adding conc. maleic or citraconic anhydride; (d) adding conc. alkali; (e) adding a further quantity of aminoacid and (f) repeating stages (c), (d), and (e) until the desired conc. of blocked aminoacid is obtd.

Blocked aminoacids are used as feed supplements for ruminants, as they are resistant to microbial degradation in the stomach. The present invention provides a process to produce these blocked aminoacids in reasonable conc. (0.15 g/ml for methirine), whereas the known process of FR application 74-40070 gave only low concentrations e.g 0.0375 g/ml for methionine since a sheep requires 1-2 g/ of methionine per day large quantities of solution would need to be added to the feed with subsequent costly evapor-ation. 7.3.80 as 005256 (6pp395)

FARB D13 08559 A/05 =GB 1581-460
Beta-lactam antibiotics used as pharmaceuticals - e.g. as active antimicrobial agents and also for promoting animal growth and food utilisation
BAYER AG 23.07.76-DT-633317
*B02 C02 (17.12.80) *DT2633-317 C07d-501/04*
Prepn. of α-(2-oxo-imidazolidin-1-yl-carbonylamino)-acetamido-cephalosporin of formula (I) and its salts or hydrates comprises reacting a cpd. (I; T is $OCOCH_3$) with a cpd. 7-H or its salt, opt. in the presence of a catalyst except where T is OH when a specific amylase is used, and in the presence of a solvent, and converting cpd. to the salt or the free acid.



(I)

In (I), A is H or OCH_3; B is opt. substd. phenyl, thienyl, cyclohexenyl or 1,4-cyclohexadien-1-yl; T is OH, pyridinium, 4-aminocarbonylpyridinium or aminopyridinium, azido, cyano, thiocarbamoylthio, opt. substd. -S-phenyl or S-Het (where Het is opt. substd. 5 or 6 member heterocycle); U is O, S or $-CH_2-$; Z is $R^1R^2.C{=}N-$ or $R^1R^2C(OH)NH-$ (where R^{1-2} are each H, opt. substd. alk(en)yl or cycloalk(en)yl or cycloalkyldienyl, opt. substd. aryl or heterocyclyl, -CO-, (m)ethoxycarbonyl, CN, NO_2, alkylcarbonyl, $CONH_2$, $CONHCH_3$, $CON(CH_3)_2$, SO_2NH_2, SO_2NHCH_3 or $SO_3N(CH_3)_2$ or R^{1-2} form a 3-7 member, opt. satd. carbocylic or heterocyclic ring).

(I) are antibacterials and are used for promoting the growth and improving the feedstuff utilisation in animals. 14.7.77 as 029631 (21pp982).

UNIL D13 90017 Y/51 =GB 1581-541
Cheese by membrane filtration of milk then fermenting concentrate - using microorganism strains giving ropey culture
UNILEVER NV 18.06.76-GB-025342
*(D16) (17.12.80) *BE-855-640 A23c-19/02*
A cheese is prepd. by (1) subjecting milk (or by-prod.) to membrane filtration treatment to form a concentrate which is admixed with cream if required to control the fat content of the cheese, (2) the pref. pasteurised concentrate is mixed with a ropy culture of lactice acid bacteria opt. with rennet and/or other microorganisms and allow the mixt. to ferment to form a precheese, (3) then, according to the cheese being made, the precheese is converted to cheese by cutting, cooking, whey sepn., washing, moulding pressing and ripening.

A soft cheese of the Camembert type is produced which is smooth but without a sandy texture. 17.6.77 (4pp937).

WIDM- D13 60045 B/33 #GB 1581-615
Cashew nut prepn. for cracking - by nicking shells on both sides on endless belt conveyor before feeding to cracking machine
WIDMER & ERNST AG 02.02.78-DT-804430 (27.01.78-GB-003356)
*(17.12.80) *DT2804-430 A23n-05*
Nut processing appts. includes guide tracks formed by 2 opposed conveyor belts which grip the nuts, and each pair of belts having a pair of opposite discs with cutting edges.

The depth of cut is restricted by shoulders on both sides of the discs. The guide tracks are connected to a vibrating container for supplying the nuts.

Pref. the guide tracks merge for the further transport of the nuts.

Cashew nuts can be automatically shelled. 27.1.78 as 003356 (4pp1376).

BRIM D13 36612 A/21 =GB 1581-699

Dietetic liquid contg. soya protein concentrate - prepd. by aq. extraction and filtration through semipermeable membrane

BRISTOL MYERS CO 15.11.76-US-741811

*(17.12.80) *BE-860-823 C07g-07*

A liq. dietary prod. contg. soy protein as the principal protein ingredient is prepd. from an aq. soln. of soy protein obtd. by the aq. extraction of defatted particulate soybean at a pH >its isoelectric point.

The aq. soln. is formed at a pH <10, but >the isoelectric point; and the insoluble material sepd. off to yield a clarified extract contg. both dissolved protein and carbohydrate. The carbohydrate is sepd. off from the extract by filtration through a semi-permeable membrane which retains the protein as retentate, and passes the carbohydrate as permeate.

The retentate contg. the protein is combined with additional nitritional ingredients, and the prod. formed. 14.11.77 as 047301 (8pp931).

UNIL D13 72773 Y/41 =GB 1581-744

Diet additive contg. acyl lactylate emulsifier - with vitamin, vitamin precursor and/or dye, pref. carotinoid to pigment flesh (NL 26.9.77)

UNILEVER NV 22.03.76-GB-011478

*C03 E19 (17.12.80) *DT2711-486 A23k-01/16 A23l-01/30*

A diet supplementary compsn. contg. a diet supplementing agent contains an acyl lactate. The acyl gp. has 12-20(16-20)C atoms. The lactate is pref. stearoyl lactate present as its Na or Ca salt. Pref. the agent:acyl lactate wt. ratio is 20:1-1:10. The agent is pref. a vitamin, pref. A, D, E or K, or a colouring agent or vitamin precursor.

The lactate acts as an emulsifier and increases the efficiency of the agent's uptake. The compsn. is partic. for increasing the pigmentation of anadromous fish, by using as the agent a carotenoid pref. canthazanthin or astaxanthin. 22.6.77 (4pp965).

UNBI- ★ D13 90812 C/51 ★GB 2048-756

Mould with flexible wall for confection mfr. - with lower section for receiving hardenable filling

UNITED BISCUITS UK 15.05.79-GB-016906

A97 (17.12.80) A23g-03

Confection is formed using a mould which has a wall portion of greater flexibility than the remainder of the mould. Hardenable liq. filling is deposited in the mould and allowed to cool. It is then ejected by applying a pressure to the outer surface of the flexible wall portion. Pref. the mould includes a lower portion in which the liq. filling is deposited, and an upper portion in which a substrate e.g. a biscuit is placed. On ejection the filling adheres to the substrate.

Mould can be used to mfr. layered biscuit/caramel fillings. 15.5.79 as 016906 (4pp295).

VEPE- ★ D13 C/51 ★HU T019-025

Separation and purification of plant protein fractions - by coagulation, opt. extraction, and enzymatic treatment with protease

VEPEX FOVALLALKOZAS 25.10.76-HU-LI0300

(28.11.80) A23j A23k

ELEL- ★ D13 C/51 ★HU T019-026

Prepn. of easily digestible protein concentrate from milk - to give water-soluble or insoluble food additive

KOZPONTI ELELMISZER (TEJI-) 13.05.77-HU-KO2859

(28.11.80) A23j-01/20

MEZO- ★ D13 C/51 ★HU T019

Prodn. of storage-stable fodders, partic. from protein-rich pla using biological feeds contg. chemically treated hay and plant extract

MEZOGEPTROSZT MEZOG 14.06.77-HU-ME2080

C03 (28.11.80) A23k-01/14

TAIY ★ D13 91054 C/51 ★J5 514

Whippable synthetic cream prepn. - by emulsifying mixt. of oi fat and aq. soln. contg. milk skimmed milk or milk solid

TAIYO YUSHI KK 19.04.79-JA-049394

(04.11.80) A23l-01/19

Method comprises emulsifying mixt. of 40-50 wt. % oil and fat and 50-60 wt. % aq. soln. contg. milk, skimme milk or milk solid, using lecithin, self-emulsifying so tan fatty acid ester and self-emulsifying-type glycerin fatty acid ester in following proportion as the emulsifie (1) lecithin 0.2-0.7 wt. %; sorbitan ester (2) 0.3 w/w% sorbitan fatty acid ester ⩽ 0.3 wt. %; glycerin ester (3) 0.1 w/w % ⩽ glycerin fatty acid ester ⩽ 0.1 wt. %; 0. x lecithin + glycerin ester ⩽ 1.05 w/w%.; lecithin + so bitan fatty acid ester + glycerin fatty acid ester; ⩽ 2.4 w/w%. sorbitan fatty acid ester + glycerin fatty acid es ⩾ 0.5 w/w%. The cream is delicious and excellent in foaming property and hardly suffers from increase in v cosity and the plasticisation. Its foam can keep form st ly during transportation and preservation. 19.4.79 as 049394 (9pp5)

KANE/ ★ D13 91307 C/51 ★J5 5142

Liquid e.g. fruit juice filtration - using filter having positive negative zeta potentials for high speed fine suspended so removal

KANEKO K 21.04.79-JA-048527

J01 (D16) (07.11.80) B01d-35/06 B01d-39

A filtration method with use of the combination of filter having positive and negative zeta-potentials is claimed. Very fine particles in a liquid can not be removed by su the filtrations using only straining effect as those with sintered metal, metal net, ceramic, filter paper, etc. When the meshes of the filter is made fine, the pressu drop of the filtration increases remarkably. The altern combination of filters having large specific of positive and negative zeta-potential removes very fine particle from a solution without considerable increase of press- ure drop.

Typically apple juice of pH 3-4 was filtered through cotton-matrix filter having negative zeta-potential and then zeta-Plus (commercial name of a filter made of A Co.) having positive zeta potential, after the treatment the juice with enzyme. The turbidity of the juice was de creased by 97.7%, whereas the turbidity-decrease was 78.2% when the juice was filtered only with the negativ potential-filter, and 88.7% when filtered only with the p itive potential filter. 21.4.79 as 048527 (2pp42)

NOMU- D13 05681 A/03 =J8 0046-

Cooking white- or Taisho Azuki beans - by immersing in Tai Azuki bean liquor contg. amino acid-contg. substance and boi in seasoning soln. contg. reducing sugar

NOMURA TSUKUDANI KK 29.05.76-JA-062665

*(21.11.80) *J52145-544 A23l-01/20*

Cooked beans are produced by (a) immersing white Azu beans or Taisho Azuki beans decoloured or bleached via boiling, into a cooked soup by-produced during conventi al cooking of Taisho Azuki beans with a substance (I) co amino acid; (b) boiling in the same soup and (c) boiling in conventional seasoning soln. admixed with reducing sugar to give a brown colouration opt. in combination with a colouring agent.

Suitable opt. (I) include Na glutamate and lysine. Re brown coloured beans are obtd. with min. use of colouri agent. The colour does not migrate. 29.5.76 as 062665 A231-1/20, (21.11.80) NOMURA TSUKUDANI KK (3pp) (J52145544)

IE D13 43118 B/23 =J8 0046-147
venting fading of paprika pigment - by cinrporation of morin
SANEI CHEM IND KK 04.10.77-JA-119648
E24 (21.11.80) *J54052-740 A23d-05 A23g-03 A23l-01/27 A23l-02

ocess comprises combining morin in amt. < 500 ppm he paprika pigment. Prod. is used as red pigment in ds, pharmaceuticals, etc. Morin is more effective n either rutin or querectine. 4.10.77 as 119648 A231-75, 2/00, A23d-5/00 A23g-3/00, (21.11.80) SANEI EM IND KK (2pp)(J54052740)

N D13 60543 B/33 =J8 0046-148
n-hygroscopic caramel prodn. - by extruding di- and/or mono-charide continuously from extruder and grinding
AJINOMOTO KK 12.12.77-JA-148958
(21.11.80) *J54084-072 A23l-01/27 +A23g-03/32

odn. of caramel (I) comprises extruding mono-saccar- and/or disaccharide continuously at 150-300°C from a ruding machine and then grinding it to powder. As the v materials, the mixt. of ≥1 monosaccharide and -starch and dextrin are pref. used, and 5-25 wt.% of ter based on α-starch and/or dextrin are addedto the xt. and pH of the mixt. is maintained 2-4 with the addn. acid, such as formic acid, acetic acid, citric acid, HCl d H_2SO_4, etc.

Previously (I) is produced by caramelisation of sacch-ides in wet-methods and spray-drying, and these meth-s are expensive and (I) obtd. is hygroscopic. Now, n-hygroscopic (I) is produced continuously and inexpen-vely. 12.12.77 as 148958 A231-1/275,A23G-3/32, .11.80) AJINOMOTO KK (5pp)(J54084072)

TU ★ D13 91421 C/51 ★J8 0046-211
bonated drink prodn. -- using a carbon di:oxide cartridge mmunicated with the drink via a pressure reduction valve and ety valve
MATSUSHITA ELEC IND KK 21.12.76-JA-154622
(21.11.80) A23l-02 B01f-01

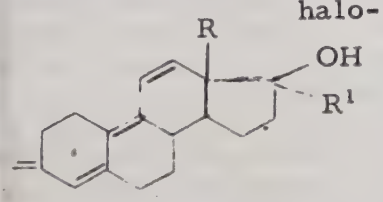
vice for producing a carbonated of drink is new. It nprises a cartridge for producing gaseous carbon dio-e communicated with a drink via a pressure redn. ve and safety valve. The cartridge is charged with a bonate and acid in separate chambers. 21.12.76 as 622 B01f-1/00, A23l-2/00 (21.11.80) MATSUSHITA EC IND KK (3pp26)(J55091180)

TU ★ D13 91422 C/51 ★J8 0046-212
ice for producing carbonated drinks - comprises partitioning e in vertical tank allowing foamable cpds. to drop into lower ctor
MATSUSHITA ELEC IND KK 21.12.76-JA-154623
(21.11.80) A23l-02 B01f-01

rice comprises a partitioning plate disposed in a verti-tank, allowing foamable cpds. charged in separate mbers formed above the plate, to drop down into a er reactor chamber formed in a lower splace of the .21.12.76 as 154623 B01f-1/00, A231-2/00 (21.11.80) TSUSHITA ELEC IND KK (4pp26)(J53091181)

S D13 44628 U/32 =J8 0046-689
easing egg yields - with gona-4,9,11-trien-3-ones
OUSSEL UCLAF 20.01.72-FR-001911
01 C03 (26.11.80) *DT2303-026 A23k-01/16 A61k-31/56

itive for poultry feed consists of or contains ≥1 cpd. ormula (I): (where R is lower alkyl and R^1 is opt. halo-substd. unsatd. 2-4C hydro-carbyl, or 3-5C cycloalkyl)



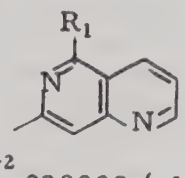
The additive brings about a qualitative and quantitative improvement in egg-laying. Esp. with hens. (I) brings about earlier laying of a ter number of eggs, the individual eggs being on ave. ier and having harder shells. 19.1.73 as 007985 20.1.72-FR-001911) A23k-1/165, A61k-31/56 11.80) ROUSSEL-UCLAF (5pp)(J48080366)

FIRM D13 72125 B/40 =J8 0046-692
1,6-Naphthyridine and alkyl derivs. - used as flavours
FIRMENICH SA 16.03.78-CH-002863
B02 E13 +P15 (26.11.80) *EP---4-352 A23l-01/23 +A24b-03/12 A61k-07/46

The useof naphthyridine cpds. of formula (I) as flavourings for foods, drinks, pharmaceutical compsns. and tobacco is claimed, as are flavouring compsns. contg. cpds. (I): (where R_1 and R_2 are H or lower alkyl).

Cpds. (I) are esp. useful for imparting a roasted, grilled or burnt flavour to meat-based foodstuffs or meat substitutes.

(I)



14.3.79 as 028832 (clg.16.3.78-CH-002863) A231-1/231, A24b-3/12, A61k-7/46, (26.11.80) FIRMENICH SA (2pp) (J54126777)

NISW ★ D13 91444 C/51 ★J8 0046-693
Fried bean-curd prepn. - by blending vegetable protein, ascorbic acid or its salt, edible gum and water to give dough, and frying in oil
NISSHIN OIL MILLS KK 02.08.76-JA-091312
(26.11.80) A23l-01/20

Vegetable protein is blended with ascorbic acid or its salt, edible gum and water to give dough like material, and this material is fried in an oil to give fried beancurd having good properties. 2.8.76 as 091312 A231-1/20 (26.11.80) NISSHIN OILMILLS KK (3pp22)(J53018759)

SUNZ ★ D13 91445 C/51 ★J8 0046-695
Extracting sweetener from Hydrangea serrata, Stevia etc. - using solvent system of glycerine, sorbitol or propylene glycol
SUN STAR HAMIGAKI 22.08.73-JA-094158
B04 E19 (26.11.80) A23l-01/22

Hydrangea serrata, Stevia or liquorice is subjected to extraction with the use of solvent system consisting of glycerine, sorbitol or propylene glycol. Sweetening substance contained in these plants can be extracted effeci-vely. 22.8.73 as 094158 A231-1/22 (26.11.80) SUN STAR HAMIGAKI KK (3pp22)(J50046871)

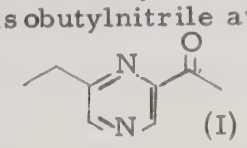
NIOF ★ D13 91446 C/51 ★J8 0046-696
Natural seasoning agent prepn. - by adding ethanol and water to conc. extract obtd. e.g. from meat
NIPPON OILS & FATS KK 13.11.72-JA-112944
(26.11.80) A23l-01/22

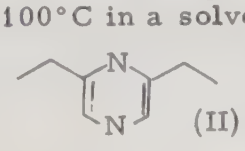
In prepn. of natural seasoning agent by extn. of natural substance such as meat with water, followed by concn. and purificn. ethyl alcohol and water are added to concn. extract, and thus produced solid substances are removed. Transparent agent can be obtd. 13.11.72 as 112944 A231-1/221 (26.11.80) NIPPON OILS & FATS KK (3pp22) (J49071169)

HASE- D13 31888 Y/18 =J8 0046-697
(2)-Ethyl-(6)-acetyl-pyrazine flavouring agent prodn. - by oxidising an allyl halide of (2,6)-diethyl-pyrazine
HASEGAUG T CO 18.09.75-JA-112075
B03 C02 E13 (D23) (26.11.80) *J52038-036 A23k-01 A23l-01/22 A61k-07/46 C07d-241/02

2-Ethyl-6-acetylpyrazine (I), is prepd. by oxidising an allylhalide of 2,6-diethylpyrazine (obtd. by allylhaliding 2,6-diethylpyrazine (II)) in the presence of sec. nitro-alkane.

In an example a mol. of (II) are reacted with 0.5-3 mol. of N- bromo-succinylimide, N-bromoacetamide or N-dimethylbromohydantoin in the presence of α,α'-azobis-isobutylnitrile at 20-100°C in a solvent, and the obtd. all-ylbromide of (II) was oxidised by refluxing with Na ethoxide and 2-ni-tropropane in eth-


(I)


(II)

anol for two hours to produce (I). (I) has a durable taste and fragrance like coffee, almond, roasted nut or their mixt. It is used in perfumes, foods, feeds and medicines. 18.9.75 as 112075 A231-1/226, A23k-1/09 A61k-7/46, C07d-241/02, (26.11.80) HASEGAWA T CO (5pp) (J52038036)

ASAH ★ D13 91447 C/51 ★J8 0046-699
Addn. of 5'-ribonucleotide to sweetening agent - to improve the taste
ASAHI CHEMICAL IND KK 13.12.71-JA-100224
B05 E19 (26.11.80) A23l-01/23

Sweetening agent e.g. neoheperidine dihydrocalchon, hesperitin-7-glucoside dihydrocalchon, etc. has 10 to 50 wt.% of 5'-ribonucleotide added to remove the bad taste of the sweetener. 13.12.71 as 100224 A231-1/236 (26.11.80) ASAHI CHEMICAL IND KK (4pp22)(J48062978)

TAIH- ★ D13 91448 C/51 ★J8 0046-702
Heat sterilisation of foodstuff at elevated pressure - by placing foodstuff in flexible vessel, sealing in autoclave under inert atmos. etc.
TAIHEIYO KOGYO KK 06.08.76-JA-094323
(26.11.80) A23l-03/10

In a flexible vessel is placed foodstuff, and the space is filled with inert gas, followed by sealing. The resultant is placed in autoclave, and the pressure is controlled to sterilise the wrapped foodstuff. 6.8.76 as 094323 A231-3/10 (26.11.80) TAIHEIYO KOGYO KK (4pp22) (J53020442)

CMCN- ★ D13 91461 C/51 ★NL 8002-914
Prod. resembling cheese - prepd from milk powder, rennet, calcium chloride, acidifier and water, for domestic use
CMC NOORDHOLLAND GA 20.05.80-NL-002914 (29.05.79-NL-004227)
(02.12.80) A23c-20

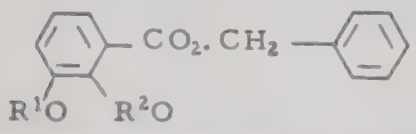
Cheese-like prod. is prepd. by (a) mixing 500-900 pts. wt. water, 100 pts. low-heat milk powder, 0.001-0.025 pts. rennet powder, 0.1-2.5 pts. $CaCl_2$, and 0.05-4 pts. of a substance which lowers the pH, e.g. citric or lactic acid, at 30-40°C, and (b) sepg. the whey from the curdled mixt.

A dessert or sandwich spread can be produced domestically, also flavoured cool drinks.

The process is simple and takes 10-15 minutes. The dry mixt. can be supplied to the housewife and has a shelf life of at least a few months. 20.5.80 as 002914 (5pp510).

CHIN D13 58654 U/40 =SU-731-889
Dihydroxyphenylbenzyl ketone derivatives - active on metabolic rate for use in medicine and aminla foodstuffs
CHINOIN GYOGYSZER 02.12.71-HU-CI1193
*B05 C03 (30.04.80) *FR2162-175 C07c-49/76*

Cpds are of formula:



and their salts-where R^1, R^2 are H, 1-20C alkyl, opt. substd by e.g. phenyl, substd. phenyl, OH 1-4C alkoxy (if R^2 is H, R^1 is not Me, Et, benzyl; if R^2 is Me, R^1 is not H, Me, Et). The cpds. are nontoxic anabolic and catabolic agents, dependent on the particular substnts. Given orally in human medicine for treatment of molecular dystrophy. Cushings syndrome, lipaemia, osteopathies and for treating geriatric cases(no dosage given). Animal foodstuff concn 0.001-0.1 % w/w. In an example, cpds where R^1 = H, R^2 = isopropyl or 4-chlorbenzyl; R^1 = Me, R^2 = propyl induce a wt. increase of 3-15% in hares and chickens when added to foodstuffs at 2g/100kg and fed for 1 month. When R^1 is cetyl R^2 is isopropyl; R^1 is H; R^2 is Bu; the cpds induce a wt. loss of 10-25% when fed to hares, sheep and chickens. Foier, L., Farkash, L., Norgradi, M., et al Bul. 16/30.4.80. 15.11.73. as855104(2pp).

PLAN= ★ D13 91617 C/51 ★SU-7
Feeding mixt. for gypsy moth caterpillars used in virus proc based on sugar beet and contains potassium glycero-phospha
PLANT BAC PREP MICR 16.01.79-SU-713851
C03 P14 (D16) (05.05.80) A01k-67

An improved feeding medium for gipsy-moth caterpill used for cultivation of viruses of nuclear polyhedrose and for the prodn of viral entomopathogenic preparati is obtd. by the includions of potassium glycerophosph (0.35-0.45%)with a mixture contg. sugar beet(18.00-22.00%), fodder yeast(3.10-3.30%), premix for bird (1.50-1.70%), ascorbic acid(0.14-0.16%), metaben(methyl ester of p-hydroxybenzoic acid)(0.10-0.14% as soln in rectified spirit) and water to 100%. Optimum centages of ingredients are in each case the mid-poi of these ranges. The components are added to hot wa (ph 5-6) which is stirred at 8000 rev/min, and the pr is stored one month at 3-5°C.

The medium is evaluated by feeding to caterpiller and assessing the yield of virus. The medium is chan every 3 days or added at the rate of consumption.

Orlovskaya, E.V., Masyuk, Yu.A., Moiseeva, R.V., et Bul. 17/5.5.80. 16.1.79. as713851(3pp1475).

GAMR/ ★ D13 91623 C/51 ★SU-7
Dried milk drying chamber gas offtake appts. - has outgoi twisted in spiral apron to separate out product powder partic centrifugal force
GAMREKELI M N 11.05.78-SU-612818
Q76 (05.05.80) A23c-01/04 F26b-25

Known appts for gas offtake from a drying chamber i the foodstuffs industry, esp. in prodn. of dried milk e.g. soluble coffee, contains a pipe with an apron mo ted coaxially above it at the inlet end. To reduce loss the prod. being dried, the apron is a spiral which is diameters of the offtake pipe at its inlet end. Plant des is simplified with less prod. lost due to entrainment that cyclones are no longer needed.

Gamrekeli, M.N., Kharitonov, V.D., Tselishchev, V.A Bul. 17/5.5.80. 11.5.78. as612818(2pp840).

DAIR= ★ D13 91624 C/51 ★SU-7
Prodn. of milk based food prod. for infants - includes u specified lactic flora bacterial cultures for milk souring and mc dextrin and vitamin addn.
DAIRY IND RES INST 13.12.77-SU-553807
(10.05.80) A23c-09/12

Infant dietary food are made from maltose enriched a vitaminised milk. A biologically improved prod. suit for infants ≤ 1 year in age, obtd. if souring is conduc with lactobacterised acidophilum, strain NK-1 and NI or NK-5 and NK-10, or NK-1 using 1 wt.% of finishe prod as starter.

Souring is conducted firstly to 40-50°T, then with ultaneous cooling to 15-25°C over 1-2 hrs to acidity 6 °T: the prod. is then cooled to 6-8°C after 10-30 min. Before high temp. treatment, the milk is reinforced dextrin-maltose or meal.

The finished prod. "Malyutka"(RTM) has a homoge eous, viscous consistency, with a clean, sweetish, la and dextro-maltose taste, acidity 60°T; the no of acid philic cells per g = 10^8. The antibiotic titre relative t Escherichia coli is 1:32, Schigella sonnei 1:128.

Ivanova, L.N., Sukhova, T.S., Koroleva, N.S., et al Bul. 17/5.5.80. 13.12.77. as553807(4pp835).

DAIR= ★ D13 91625 C/51 ★SU-7
Soured milk based beverage - prepd. using lactic Streptococcus acetoinicus and thermophilus strains and low fa
DAIRY IND RES INST 29.12.77-SU-562035
(05.05.80) A23c-09/12

Both consistency and taste of soured milk based beve are improved by employing for aroma formation, str tococcus acetionicus strain 121 or 151, and streptoco thermophilus, P_{2_O} pr °2.

The initial milk employed has a 1.5-1.8% fat cont After souring the beverage is cooled to 16-20°C and 10%(mass of soured milk)fruit syrup is added.

The finished prod contg. partially skimmed milk and caseinate 1.5% fat; has acidity is 90-120°T. It is sonably thick and creamy with a fruity soured milk te.
yrenova, G. S., Inozemtseva, V. F., Pyatnitsina, I. N., : 17/5. 5. 80. 29. 12. 77. as562035(2pp835).

O= ★ D13 91626 C/51 ★SU-731-948
ck ripening large size hard cheese - prepd. using Streptococcus rmophilus, lactis and bovis strains, and Lactobacterium lactis, ntarum and casei strains
EREV ZOO VET INST 28.12.77-SU-562015
(10.05.80) A23c-19/02
e variety of cheeses is extended and ripening time is rtailed if for souring a starter streptococcus thermo-ilus, S. lactis and S. bovis, indices-acidity 126-144°T, oteolysis 17.5-26.0 mg%, coagulum density 0.9-1.2 cm^2, producing 5.9-9.4 mg % free NH_2-acids and 11.6-mg% vol. fatty acids.
The following are also added. Lactobacterium lactis, plantarum and L. casei strains indices 230-270°T, -34 mg%, 1.1-1.3g/cm^2, 14-27 mg% and 20.5-26.0 mg selected from one strain from each species. The ratio ctic fluora streptococci and lactobacteria is 2:1, sec. ating temp is 45-49°C, water content offresh cheese 41-44%. The cheese is matured in 60-65 days.
The usual complex processes have been simplified d ripening time has been curtailed from 4 months to 60 days. The proposed cheese named ''Gornyi'', re-ires less exacting milk pretreatment than present Sovetskii'' cheese.
lanyan, Z. Kh., Saakyan, R. V., Yudin, L. P., et al ul. 17/5. 5. 80. 28. 12. 77. as562015(4pp835).

MNU= ★ D13 91627 C/51 ★SU-731-949
lk food for use during acute pancreatitis - contg. milk, powder sein, salts, sugars, starch, oat flour and vitamin(s)
AC MED SCI NUTRITIO 27.04.78-SU-609601
(10.05.80) A23c-23 A23j-03
rotein-reinforced dietary milk food used during acute ncreatitis and related problems contains(in wt.%): sein 15.0-17.5, tri Na citrate 1.0-1.44, tri K citrate 93-1.35, tri Mg citrate 0.35-0.41, $NaHCO_3$ 0.92-1.08, xcharose 4.0-6 0, starch 4.0-6.0, children's grade t flour 8.0-12.0 Fe glycerophosphate 0.38-0.42, dry immer milk-remainder.
The following water-soluble vitamins are added(in %): thiamin 1.4-1.6, riboflavin 1.1-1.3, pyridoxin 9-2.1, niacin 14.0-16.0, ascorbic acid 65.0-75.0.
The prod. is dissolved in water at 70-80°C(12g/100ml) ated to boiling and cooled to 35-37°C for use.
sterin, M. F., Korobkina, G. S., Levachev, M. M., et al l. 17/5. 5. 80. 27. 4. 78. as609601(5pp835).

O ★ D13 91628 C/51 ★SU-731-950
dn. of confectioners' jelly - includes addn. of invert sugar syrup q. acid protein based soln. for firm structural characteristics
HETEROORG CPDS AS USSR 13.04.78-SU-605198
(05.05.80) A23l-01/06
fectioners' jelly is made by dissolving protein in an aq acid(e. g. citric acid) mixing it with aromatic agent flavourings and heating the prod.
Quality is improved by firming the structure of the t. if 30-400 wt.%(based on protein) of invert sugar is ed to the protein soln.
lova, N. I., Yakovleva, V. N., Bezrukov, M. G., et al 17/5. 5. 80. 13. 4. 78. as605198(2pp835).

D ★ D13 91629 C/51 ★SU-731-952
minised nutritive emulsion compsn. - from vitamin(s), salts, ours, sugar, casein and glucose
ETEROORG CPDS AS USSR 18.11.77-SU-546069
(05.05.80) A23l-01/34
utritive emulsion with biological activity (in g/100g lsion) vegetable oil 20-70, casein 1-3, Ca gluconate 04-0.1, pectin 0.01-0.1, glutamic acid 0.50-0.75, thionine 0.50-0.75, Decamevite (RTM) 0.50-1.00, K orotate 0.50-0.75, Panangin 0.096-0.148, ascorbic acid 0.30-0.50, Ca pangamate 0.15-0.20, Ca glycero-phosphate 0.50-0.75, vanillin 0.026-0.03, cocoa powder 2.00-4.00, NaCl 0.20-0.25, powdered sugar 4.00-10.0, glucose 10.0-40.00, remainder water.
The prod. is a balance of mineral salts and vitamins in a stable emulsion.
Agureev, A. N., Braudo, E. E., Pushko, R. S., et al Bul. 17/5. 5. 80. 18. 11. 77. as546069(4pp835).

YALT= ★ D13 91630 C/51 ★SU-731-953
Non-alcoholic, sparkling aperitif - contg. carbon di:oxide, sugar, citric acid, green tea, wormwood, lemon and hops extracts and water
YALTA BEER NON-ALCO 04.12.78-SU-691648
(05.05.80) A23l-02
Non-alcoholic sparkling beverages contain sugar, citric acid, green tea infusion, CO_2 and water. Both organo-leptic and medicinal properties are improved by employ-ing formulation contg. (in wt.%): sugar 6-12, citric acid 0.12-0.24, green tea infusion 1.0-3.0, wormwood/lemon infusion 0.01-0.3, infusion of hops 0.1-0.4, CO_2 1.8-2.0, remainder water.
Krasnikova, E. V., Ul'yanova, Yu. S., Baranov, V. V., Bul. 17/5. 5. 80. 4. 12. 78. as691648(2pp835).

ASCH= ★ D13 91747 C/51 ★SU-732-228
Oxidn. inhibition of alkyl-aromatic and olefin hydrocarbon - by tri:tert-butyl-phenol or di:tert-butyl methylphenol and di:para-phenylamino-phenoxy-silane to prevent discoloration
AS USSR CHEM PHYS 05.12.77-SU-550086
A60 E14 H07 (E17) (10.05.80) C07c-07/18
Oxidn. of alkylaromatic cpds. and olefin hydrocarbons (e. g. in monomer, polymer, lubricating oil, benzine-cracking and foodstuff prods.) is inhibited by a mixt. of aromatic amine and 2,6-di-tert-butyl-substd. phenol.
In order to increase inhibition period and to prevent dis-coloration a mixt. of 2,4,6-tri-tert-butylphenol (I) or 2,6-di-tert-butyl-4-methylphenol (ionol) with di-(phenyl-aminophenoxy)-silane (II) is used in molar ratio of 1-1.5:1.
Meskina M. Ya., Karpukhina G. V., Maizus Z. K. et. al. Bul 17/5. 5. 80 5. 12. 77 as 550086 (4pp114)

MERI ★ D13 92023 C/51 ★US 4237-116
Increasing feed efficiency of ruminants - by adding synergistic mixt. of thiopeptin and rumensin to feed
MERCK & CO INC 19.04.79-US-031660
C03 (02.12.80) A61k-35 A61k-37
Feed efficiency of ruminant animals is increased by orally administering to the ruminant, as part of its feed, a com-bination of 8.25 ppm of thiopeptin and 16.5 ppm of rumen-sin.
Thiopeptin and rumensin act synergistically to shift the volatile fatty acid content of the animal's rumen such that the more efficient propionate is produced in greater quan-tity and the less efficient volatile fatty acids are produced in lesser quantities. The increased feed efficiency is shown by greater weight gain per feed intake and a redn. in energy loss by methane release. 19.4.79 as 031660 (4pp914).

HOWA/ D13 91788 X/49 =US 4237-118
Mineral and vitamin dietary supplement - for use with skim milk for treating obesity
HOWARD A N 16.05.75-GB-021029 (06.03.72-GB-010439)
*B05 (02.12.80) *NL7605-169 A01n-59/16 A61k-33/18 +A01n-59/20*
Dietary supplement contains minerals and vitamins and is for use in conjunction with skimmed milk to provide a com-plete low calorie diet for the treatment of obesity in men.
The amt. of the supplement which contains a datum level of 18mg ± 9mg Fe also contains ≥ 182mg Na, ≥ 308mg K, ≥ 64mg Mg, Vitamin A in amt. of ≥ 750 ug retinol equivs., ≥ 100 i.u. Vitamin D, ≥ 0.76mg thie-mine, ≥ 14mg nicotinic acid and ≥ 18mg ascorbic acid. The total calorie content (if any) of that amt. of supple-ment is ≯ 200K cals. 14.5.76 as 686594 C.i.p. 4009265 (+5.3.73-US-338257) (11pp393).

AMCY ★ D13 92024 C/51 ★US 4237-120
Improving feed efficiency and growth rate of meat animals - by oral admin. of antibiotic BM 123 gamma, its complexes and derivs.
AMERICAN CYANAMID CO 28.08.79-US-070458 (02.02.78-US-874432)
B04 C03 (B03) (02.12.80) A61k-31/71
Feed efficiency and growth rate of meat animals are improved by oral admin. of Antibiotic cis- or trans-BM123γ (I) or its salts; or a (I) complex with an alkyl sulphate, dioctyl sulphosuccinate, syntan or pamoate; or an alkylated deriv. of (I).
(I) are effective for improving feed efficiency and growth rate in poultry, sheep, cattle, swine, goats etc. Cis- and trans- (I) and their salts are described in US4007167 and 4018972. The alkylated derivs. of (I) are described in US4048431. Dose is 0.1-25mg/kg daily in feeds, drinking water etc. 28.8.79 as 070458 (13pp1248).

HUSQ D13 61730 B/34 =US 4237-145
Protein-contg. food prodn. - by extruding food paste from tube transparent to microwaves and treating with microwaves to give intense central heating (NL 7.8.79)
HUSQVARNA AB 03.02.78-SW-001280
*W02 X25 X26 (02.12.80) *DT2903-984 A23I-03/30*
Foodstuff is made from a heat-coagulatable proteinaceous mass by pumping a paste through a microwave-transparent tube and exposing in a TM_{021} applicator to give maximum heat intensity in the mass centre and minimum intensity at the periphery. A lubricant is supplied to the interface between mass and tube and the mass is extruded as a handleable solid prod.
Used to treat eggs, partially coagulated yolks are pumped through an inner, and whites through an outer, tube, the inner tube ending before the prod. exit. The lubricant is pref. pressed through a channel in the outer tube wall. 29.1.79 as 007420 (6pp1358).

RICH- ★ D13 92029 C/51 ★US 4237-146
Microbiologically stable food dressing - comprising water, sugar, fat, flavouring and opt. quinine (bi)sulphate or hydrochloride
RICH PRODUCTS CORP 26.03.79-US-024130 (28.01.77-US-763613)
(02.12.80) A23I-01/24
Microbiologically stable food dressing which is substantially non-crystalline at freezer temps., comprises 15-55% water, sugar in a ratio to water of 0.8-2:1, ⩾ 10% fat (of which 50-100% is unsaturated) and a minor amt. of flavouring. The amt. of fat is < the amt. of water and ⩾50% of the sugar used consists of dextrose + fructose. The compsn. may also contain up to 125 ppm quinine (bi)sulphate or quinine hydrochloride to reduce the sweetness.
The compsns. are useful as buttercreams, whipped toppings, low fat whipped creams, non-diary shakes, icings and coffee whiteners which can be stored at freezer temps., and which have improved usage life when thawed to refrigerator or room temp. Parent specification US4199684 (32739C318) describes non-diary coffee whiteners of similar compsn. 26.3.79 as 024130 Div. ex 4154863, 4146652 (+20.6.78-US-917379) (9pp513).

MONS ★ D13 92030 C/51 ★US 4237-147
Dry beverage compsns. contg. stabilised amorphous calcium carbonate - giving rapid release of carbon di:oxide on addn. of water
MONSANTO CO 04.01.74-US-431002 (03.02.71-US-112446)
E33 (02.12.80) A23I-02/40
A dry beverage concentrate for preparing a carbonated beverage contains amorphous calcium carbonate free of calcium hydroxide, and an excess of an anhydrous non-toxic acid.
The compsns. release CO_2 rapidly, without the use sodium bicarbonate which imparts an unpleasant taste. The compsn. may also be an effervescent medicament prepn. 4.1.74 as 431002 (16pp955).

MEGG D13 74334 Y/42 #US 423
Dry, antimycotic hexamethylene-tetramine thiocyanate comp produced by adding carrier material to aq. soln. and drying
MEGGLE MILCHINDUSTR 09.04.76-DT-615715 (07.11.7 849262)
*A96 B05 C03 (02.12.80) *DT2615-715 +C07d-487/18*
Prodn. of dry compsns. contg. hexamethylenetetrami (HMT) and thiocyanic acid comprises reacting HMT wi an alkali(ne earth) metal thiocyanate in the aq. phase i the presence of acid, where the improvement compris (a) combining this reaction prod., without isolation, w an inert carrier; and (b) drying the combined carrier a aq. soln. at a temp. less than the b. pt. of the aq. soln e.g. by spray drying.
Pref. the carrier is starch, and K thiocyanate is us Pref. the acid used is phosphoric acid. HMT-thiocyan is used for contacting bacterial infections in veterinary medicine, and has high antimycotic activity. The com do not decompose during long storage and do not form lumps at high humidities. 15.8.79 as 066855 Div. ex 4188386 (4pp954).

NEST D13 86634 C/49 =US 4237
Caffeine removal from oil solns. - by contact with hydrop phenol-formaldehyde resin
SOC PROD NESTLE SA 17.05.79-US-039956
*A97 E13 (02.12.80) *DT3018-884 +C07d-473/12*
Caffeine is removed from soln. in a fatty medium by c tacting with a hydrophilic, phenol/formaldehyde polym resin contg. phenolic functional gps., and sepg. the re from the soln. contg. the reduced caffeine content.
Pref. the contacting occurs at 60-75°C, and the fatt material is olive oil, corn oil, soybean oil, safflower coffee oil, peanut oil, lard or triolein. The caffeine s is coffee oil expressed from roasted and ground coffee.
In the process, the solvent medium can be recovere and the exhausted resin contg. adherent caffeine and a other non-caffeine solids be regenerated for re-use. 17.5.79 as 039956 (2pp931).

DRED ★ D13 92081 C/51 ★US 423
Prepn. of odorant and flavouring aryl alkyl di:sulphide(s) reacting a sulphonium salt with a mercaptan
GIVAUDAN L & CIE SA 16.05.78-US-906524 (01.10.75 012728)
E13 (D23 E14) (02.12.80) C07d-241/18 C07d-277/16
Prepn. of aryl alkyldisulphides $R_1(Y)_n$-S-S-R_2 (I) invol reacting a sulphonium salt A-S-$\overset{\oplus}{S}$-RA $Z^{\ominus}$ with a merca A-SH at -20 to 50°C in a solvent. In the formulae one is $R_1(Y)_n$ and the other is R_2; R_1 is an opt. 1-6C alkyl-substd. Ph or furyl gp., or opt. 1-6C alkyl-substd. 5-6-membered heterocyclic gp. contg. ⩾1 N and/or S; CH_2 opt. mono- or di-substd. by 1-6C alkyl or 2-6C alkenyl; n is 0-5 (but it is 2-5 when R_1 is the Ph or furyl e.g. tri-(lower alkyl)oxonium, hexachloroantimonate, perchlorate, nitrate or arylsulphonate. 16.5.78 as 906524 Div ex 4130562 (+24.9.76-US-726100) (11pp124

D14: FOODSTUFF MACHINERY

DI- ★ D14 90747 C/51 ★FR 2450-636
chine for continuously chopping cassava root - by shear action of ial blades on rotor passing between counter blades fixed to ing
CROIX C ETAB SA 06.03.79-FR-005716
P41 (07.11.80) A23l-01/21 B02c-18/06

machine for continuously chopping up root vegetables . into fine pieces comprises an outer casing contg. a tor driven rotor on a horizontal axis. The motor is de up of a centre shfat on which are fixed a set of ially-spaced, coaxial, annular flanges. Each flange is ed with a number of radial shear blades. which are i-spaced angularly around the flange. The blades of all tors are axially aligned so that each line of blade tips is rallel to the rotor axis.

As the rotor turns, each line of blades in turn reaches adially horizontal position on its downward path. At s point the line of blades passes through a horizontal e of counter-blades. The counter blades have the same eral spacing as the rotor blades. The counter-blades e rooted to the casing and extend between the rotor des almost to the centre shaft.

Used for chopping root vegetables, esp. cassive root, o fragments. Machine operates with pure shear action light blades on a rotor turning at ~1000 r.p.m.. The chine is cheaper than a hammer mill with heavy rotor ning at 3,000-4,000 r.p.m.

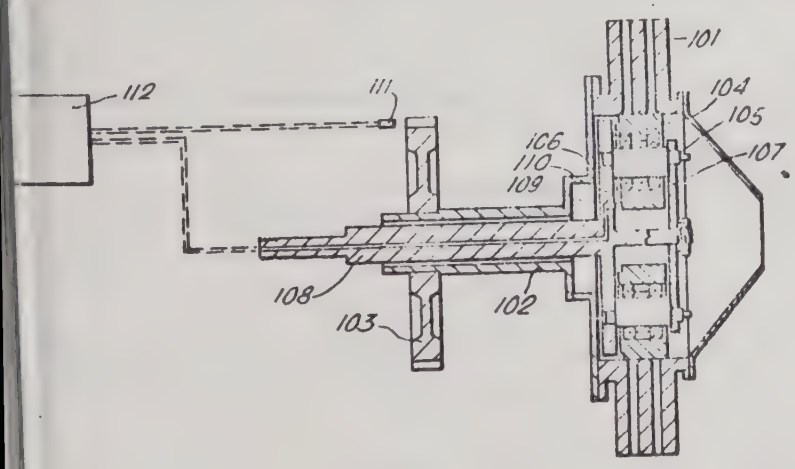
The new machine can produce, consistently sizes fragnts, i.e. ~15 mm, instead of the mixt. of lumps, gments and fines from a hammer mill, Screening is necessary. 6.3.79 as 005716 (10pp448)

ON/ ★ D14 C/51 ★HU H002-578
chine for coring and dicing peppers or cleaning onions - has ni-automatic operation and rotary drum with external grab for duct
GYONGYOSI J 30.01.80-HU-000197
(28.11.80) A23n-04/22

O- ★ D14 C/51 ★HU T019-029
on harvesting and root cutting machine
MEZOGAZDASAGI GEPGY 21.02.79-HU-KA1518
28.11.80) A23n-15/08

- ★ D14 91458 C/51 ★NL 7904-155
usion press producing cattle feed pellets - adjusts gap as tion of slip between die and roller with feed control
NILEVER NV 28.05.79-NL-004155
06 X25 P71 (02.12.80) B30b-11/20

press which is suitable for preparing cattle feed in form of cubes or pellets the material is fed through



ap between the pressure roller and a die with exon holes. The roller or the die will be positively n and one of these components will be rotated by the .

ue slip between the die (101) and the roller (104) will easured and the supply of material to the gap will be varied when this value changes at a given rate. The slip is transmitted in the form of electrical signals proportional to the circumferential speed of the roller. The signals are supplied to a comparator where they are compared with a reference. 28.5.79 as 004155 (15pp1011).

SHEN/ ★ D14 91641 C/51 ★SU-731-984
Heat- and mass-transfer column for gas-liquid systems - has horizontal dividing perforated screens with packing layer and gas-permeable inner walls
SHENDEROV L Z 28.03.78-SU-596493
J04 (05.05.80) B01d-03/20

Heat- and mass- transfer columns is used for gas-liquid systems, particularly for absorption and rectification in the chemical, petroleum-refining, gas and food industries It has body with packing divided into layers by screens with holes to let the gas through, and gas permeable walls forming passages for the gas with the walls of the body. Productivity is increased together with mass- transfer efficiency, as a result of increasing the path of the gas within the limits of one contact stage, by installing dead-end partitions between the screens with overflows and hydraulic traps. The gas-permeable walls are connected to the partitions and one of the walls is made with a continous section disposed opposite to adjacent partitions.

Shenderov, L. Z. , Roshin, B. E. , Dilman, V. V. , Bul. 17/ 5. 5. 80. 28. 3. 78. as596493(4pp29).

NCAU= ★ D14 91646 C/51 ★SU-731-989
Chamber vacuum filter for vegetable materials - has fixed filter elements and rotating discs to which strips and scrapers are attached to move the material
N CAUC HORT VITICUL 09.11.77-SU-540263
J01 (05.05.80) B01d-25/38

Chamber vacuum-filter is intended for separating suspensions with precipitates in the food, paper, chemical etc industries. It has body with fixed filter elements inside it, shaft with rotating discs disposed between the elements and pipes which admit the suspension and remove the filtrate and the residues. Operational efficiency is increased, during separation of suspensions with fibrous and vegetable structures, by making the stationary filter elements conical and the rotating discs as plates, the conicity of which is greater than the conicity of the filter elements. The plates have scrapers in the form of strips located on the outside, inside and end surfaces of the plates, with mutually-opposite guides for the strips on the inner and outer surfaces and on the ends, describing a helical line.

Chudakov, G. M. , Bul. 17/5. 5. 80. 9. 11. 77. as540263(4pp29).

HOON- D14 84417 B/47 =US 4236-541
Washer and dryer esp. for fruit and vegetables - circulates and regulates water between inner and outer container
HOONET SAS DI INDRO 04.05.78-IT-040068
P28 + P41 P43 (02.12.80) *DT2917-960 B08b-03/02

Vegetable and fruit washing and drying appts. consists of a perforated container inside a housing, the container having a door for loading of produce, and the housing having two water discharge arrangements. At first washing water is injected into the container, which is held steady; and the container is rotated, after release of the holding arrangement to centrifugally dry the produce. One of the discharge arrangements maintains the water level in the housing constant during washing; and the other empties the container between washing and drying, and changes the water during washing.

Washing and drying can be carried out using one appts. 3. 5. 79 as 035552 (6pp1376).

D15: WATER TREATMENT

WSWS- ★ D15 90167 C/51 ★BE-884-447
Floating ejector pump aerator to purify industrial waste water - is built into floating tubular frame which can be selectively flooded to trim buoyancy
WSW STAHL U WASSERB 12.07.80-DT-026519 (12.07.80-DT-U18787)
(17.11.80) B01f C02f

The installation is of the type in which an ejector pump draws in atmospheric air and delivers it together with recycled water through a twin-walled duct at an angle to the surface of the water. The inner wall of the duct is air permeable and the outer wall is not.

The ejector pump and the twin walled duct are now suspended in a floating, tubular framework. The framework tubes are interconnected so that the tube interior spaces form one or more buoyancy chambers. At least one pref. each, buoyancy chamber is fitted with a valve through which it can be flooded with water and another through which it can be blown full of air.

Used for purificn. of industrial waste water by aeration with bubbles. No matter what the surface level of water to be treated, the buoyancy chambers can be adjusted to float the framework below the surface at the level for optimum aeration with no disturbance to settled sludge. The framework can be tilted as desired. 24.7.80 as 884447 (21pp448)

BROZ/ ★ D15 C/51 ★BR 7903-354
Extraction by distillation without boiler
BROZENSKY J F 29.05.79-BR-003354
(02.12.80) C12f-01

GIAN/ ★ D15 C/51 ★BR 7903-379
Desalinator for sea water using ionic dissociation
GIANNOTTI P 30.05.79-BR-003379
(02.12.80) C01b-03/02 C02f-01/46

SEIK- ★ D15 C/51 ★BR 7903-477
Purification of water or aq. materials - and live bacterial prepn. for this purpose
SEIKEN KAI FOUND 01.06.79-BR-003477
(02.12.80) C02f-03/34

AFLI- ★ D15 90204 C/51 ★CA 1090-262
Perforated tube coalescer separator - has vertical perforated foraminous tubes forming filter body across which liq. flows horizontally
AFL IND INC 19.05.78-US-907826 (14.02.77-US-768266)
J01 (25.11.80) B01d-17/04

Perforated tube coalescer-separator for a liq. clarifying gravity sepg. system comprises a number of hollow, vertical foraminous coalescer tubes assembled together with their walls facing one another to form a filter body through which liq. to be filtered flows in a horizontal direction, through arrays of closely spaced holes. Coalescible light foreign matter suspended in the liq. is coalesced on the outer and inner surfaces of the tubes and passes upwardly through the tubes and through the spaces between them. Heavy suspended foreign matter settles out of the liq. and passes down the tubes and the spaces between them.

Used for sepg. hydrocarbons from water condensate and rainwater, and hydrocarbons and particulate solids from coolant used in metal working. The separator can separate large amts. of foreign matter without becoming contaminated or fouled. High sepn. efficiency because the tubes provide a large effective surface area for contacting the liq. 25.10.77 as 289417 (43pp67)

VESE/ ★ D15 C/51 ★CS 7907-277
Acceleration of pptd. barium sulphate sedimentation
VESELY V 26.10.79-CS-007277
E33 (29.08.80) C02f-01/28 G21f-09/04

KAUD/ D15 32220 U/23 =DS 2156-
Corrugated flexible tube - for heat exchangers
KAUDER K (KAU /) 15.11.71-DT-156578
*J08 Q67 + Q78 (11.12.80) *DT2156-578 F28f-01/08*

Flexible heat exchanger pipe for the conveyance of fluid consists of a corrugated tube with a helical corrugation. The preferred ratio of wave depth to distance between t wave crests is 0.01-0.5 (0.1-0.2) and the ratio of wave depth to inside diameter is 0.01-1.0 (0.03-0.3). The h angle of the corrugations is 5-20°.

Such a corrugated tube superimposes a rotation to th fluid flow which results in an optimum relation between heat transfer coefficient and flow resistance. 15.11.71 as 156578 (8pp39).

HENK D15 54705 U/38 =DS 2209-
Antifoaming compsns - contg waxy esters
HENKEL KG AUF AKTIEN 29.02.72-DT-209559
*A60 E17 F09 (11.12.80) *DT2209-559 B01d-19/04*

Antifoam mixts. consist of (a) 60-80 pts. wt. of waxy, mono- and/or diesters of oxystearyl alcohol with a satd. (OH-) fatty acid contg. ≥16C, and (b) 20-40pts. wt. silicone oils, fats, waxes, fatty acids or adducts of ethylen and/or propylene oxide to fatty alcohols, alkylphenols o fatty acids. The mixts. are dispersed in an organic liq or water in such amt., that the dispersions contain 5-15 wt. % of the oxystearyl alcohol esters.

An adduct of 2 mols ethylene oxide and 4 mols propyl oxide to isotridecyl alcohol or a polyethyleneglycol stea ate of mol. wt. 5,000-10,000 is pref. used as componen (b).

Antifoam dispersions are provided, which are highly effective to suppress foams of synthetic resin dispersio or in the paint, paper or foodstuff industries. The mixt are synergistic. 29.2.72 as 209559 (6pp260).

WILL/ D15 65299 X/35 =DS 2604-
Extraction of aluminium from minerals - by chlorinating intim mixture of aluminium mineral and carbon
WILLHOFT E M 05.02.75-GB-004969
*F09 M25 (11.12.80) *DT2604-486 C01f-07/60*

Method is described for the recovery of Al from minera in which the mineral is intimately mixed with fibrous ce lulose and heated to carbonise the latter. The solid residue from the carbonising reaction is the chlorinated a Al recovered from the prod. Pref. the cellulose used i dried paper pulp, e.g. obtd. as a byproduct in paper m

Typically, the volatile prods. from the chlorinating action are introduced into ethanol then led through a bed active carbon. The ethanol is subsequently removed by fractional distillation. 5.2.76 as 604486 (4pp926).

RHON D15 04310 Y/03 =DS 2630-
Solns. of basic aluminium hydroxy chlorides - for treatment of effluents, for use in cosmetics and prodn. of cat carriers(BE100177)
RHONE-POULENC INDUSTRIES 10.07.75-FR-021661
*E33 (D21) (11.12.80) *DT2630-768 C01f-07/56 + C02f-01/52*

Method is described for the mfr. of a soln. of basic Al hydroxychloride in which an ammonium or alkali cpd. i added to a soln. of $Al(OH)_{a'}Cl_{b'}Y_{c'/z_1}M_{d'/z_2}$ in which ≤ 1.1, c' ≤ 0.6 and d' < d and where a'+b'+c'=3+d'. T reaction is allowed to take place at < 50°C, pref. just above the freezing point of the reaction medium. Whe c' < 0.6, the complementary quantities of the Y anions are added. The prod. is claimed for use in treating wa and aq. media.

Typically $NaHCO_3$ is slowly added to a soln. of $AlCl_3$. H_2O followed by $Na_2SO_4.10H_2O$ as soon as CO_2 evolution has ceased. Removal of Ca sulphate or gels during mf avoided. 8.7.76 as 630768 (5pp926).

- ★ D15 90240 C/51 ★DT 2921-506
xchange resin regeneration - by removing cation-anion dary layer from transfer line during regeneration
ENG IND LTD 28.05.79-DT-921506 (00.00.78-DT-823070)
1 (11.12.80) B01j-49 C02f-01/42
xchange material which has been spent in the produc- of high-purity water is regenerated by extracting the cation exchanger and then the cation/anion boun- surface layer and by terminating the transfer when the r is still in the transfer line, as described in the nt Patent No. 2823070. This boundary layer is remo- rom the line after the ion exchanger tank outlet has isolated from its inlet, but before the ion exchange neration is completed.
perience has shown that this improves the regenera- of the ion exchange material. 28.5.79. as 921506 to 2823070 (10pp39)

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l/ ★ D15 90264 C/51 ★DT 2921-728
water desalination - by freezing and evaporation in-stages g energy from wind power
LANTIKOW K U 29.05.79-DT-921728
1.12.80) C02f-01
water is desalinated for the production of drinking er by a multi-stage extraction process, based on cessive freezing and evaporating of the ice crystals. eral heat exchangers are incorporated in a subsequent ensive evaporation section. The entire amount of po- required is generated by wind power.
This system can be introduced in coastal regions hout any electric power supply where other systems e to be ruled out. Calculations have shown that nking water can be produced by this system at a rea- able cost. 29.5.79. as 921728 (9pp39)

- ★ D15 90276 C/51 ★DT 2921-922
screen cleaning rake - suspended from slewing crane boom built-in dewatering plate
ENITH-MASCH GMBH 30.05.79-DT-921922
42 (11.12.80) E03f-05/14
rake for cleaning a bar screen in a sewage clarifica- plant is operated by a slewing crane which moves rake in the direction of the sewage flow and lifts the on a boom. A thrust plate on the rake cooperates a back-up plate above the sewage channel to dewater rake contents and is used to eject the dry contents n the rake tines by a power cylinder.
This simplifies the bar screen and dewatering mech- m and saves any extra transverse conveyors. .79. as 921922 (10pp39)

U- ★ D15 90326 C/51 ★DT 2922-735
r balance economy - in air coater interaction systems by liquid and hardness control
AINTAL-KLIMA-SERV 05.06.79-DT-922735
1 Q78 (11.12.80) B01d-47 C02f-01/42 F28c-03
water balance is controlled in plants with a gas/ r interaction, specially in gas scrubbers and cooling rs, by liquid level monitors and hardness detectors. maximum level is restored by fresh water, softened n exchange resin, when a maximum concentration lts is exceeded. The hard water is removed until nimum level is reached. The removed amount is ced by an anticorrosion agent.
his reduces the consumption of water and of anti- osion agent to the minimum required for a reliable ion of the system. 5.6.79. as 922735 (23pp39)

★ D15 90335 C/51 ★DT 2922-778
liquid separation - in bag filters after gas injection forming m percolating coating on bag inside
ECHST AG 05.06.79-DT-922778
.12.80) B01d-23/04 B01d-37/02 C02f-01/24 C02f-09
s-liquid separation, based on a percolating filter bag type in which a percolating coating is formed e inside of the tissue bag, is preceded by adding a uch as air to the suspension to be filtered. This produces a floating layer of slurry on the surface of the liquid as it rises in the bag. This slurry contains the so- solids and forms a percolating coating on the inside of the filter bag.

This enables industrial wastes to be treated even with- out any admixture of flocculants. The new method allows the use of tissue of high porosity. Used for municipal sewage, industrial wastes from abattoirs, poultry farms, dairies, electroplating works, metallurgical, paper, sugar industries, wine production and grinding depart- ments. 5.6.79. as 922778 (5pp39)

KOPS ★ D15 90374 C/51 ★DT 2923-457
Sludge scraper for settling tank floor - is mechanically lowered at intervals by gap in side rails
KRUPP-KOPPERS GMBH 09.06.79-DT-923457 (00.00.78-DT-847569)
(11.12.80) B01d-21/20 C02f-11
Sludge scraper plate travels longitudinally along the floor of a settling tank and is held by a tube mounted at its ends on rollers running along a lower rail and returned by motor-tensioned cable along an upper rail to the start- ing position. At intervals the lower rail has arcuate bends occupied by toothed rotors and followed by a gap with a rotary closure.

When the closure is open the scraper can descend to the floor and end-switch is actuated to start the scraping. When the closure is shut, the scraper continues along its original path to a similar gap, or completes its full jour- ney. The change -over mechanism can be altered to give specific scraping cycles.

The scraper need not invariable traverse the full length of the rail but may be recycled to rescrape specific lengths a number of times before passing to a less heavily-settled length, without requiring an added cable and/or motor. 9.6.79. as 923457 Add to 2847569 (20pp1480)

CORG ★ D15 90384 C/51 ★DT 2930-812
Appts. for biological processing of organic wastes - comprising a series of bio-reactors contg. microorganisms immobilised on porous carriers
CORNING GLASS WORKS 01.06.79-US-044505
(11.12.80) C02f-03/30 G01n-33/18
Appts. for processing biodegradable organic wastes in liq. media, waste waters, etc., comprises a series of ⩾2 reactors contg. immobilised microorganisms. The 1st reactor is a hydrolytic redox bioreactor contg. a suitable biomass-accumulating carrier, and the 2nd reactor is an anaerobic bioreactor contg. a porous inorganic carrier for biomass accumulation.

The appts. is capable of producing useful products (methane, alcohols, H_2, etc.) from effluents contg. undissolved solids without expensive pretreatment. 30.7.79. as 930812 (38pp367)

WYSS ★ D15 90388 C/51 ★DT 2943-528
Heat treatment of compacted or granulated material - esp. the fluidised bed drying and sterilisation of sewage sludge in mfg. manure
ESCHER WYSS GMBH 28.05.79-CH-004940
J08 Q76 (11.12.80) F26b-03/10
The material is dried or calcined in a fluidised bed contg. heated contact surfaces; and the gases used for fluidisation are only those evolved by the material being heated. The evolved gases are recirculated via ducts which include a by-pass for removing surplus gas, i.e. the excess above that required for fluidisation.

Prior to using the evolved gases for fluidisation, they are pref. treated to remove dust, and/or heated or cooled; and the process pref. results in the sterilising of the material. The surplus gas removed from the process is pref. condensed and purified, and possibly also detoxified. 27.10.79. as 943528 (14pp1144)

OCEA- ★ D15 90402 C/51 ★DT 3015-663
Accurate determn. of total organic carbon in water - using purge and trap technique with adsorption conversion to methane and monitoring
OCEANOGRAPHY INT CO 07.06.79-US-046172
J04 S03 (11.12.80) G01n-31/06

Total organic carbon present in an aqueous sample is determined by a three stage procedure. Firstly all the inorganic carbon is removed. The volatile carbon compds. are then purged out by an N_2 stream which is bubbled through the sample. The organic material removed in this way is adsorbed onto a polymeric adsorbent material. It is subsequently desorbed and converted to CH_4, the quantity of which is measured.

Non-volatile organic material is determined by heating some of aqueous sample in a H_2 atmosphere to convert it to CH_4. The quantity of CH_4 formed then gives a measure of the total carbon.

Used for measurement of total carbon in water streams. The technique of purging is known but some materials are not sufficiently volatile to be removed by the purge. The technique described extends the method to give total carbon. 23.4.80. as 015663 (30pp1053)

SODA- D15 84161 A/47 =EP G000-813
Portable water carbonator for sparkling drinks - has simplified and more efficient inlet and outlet valves coupled by rigid connecting rod
SODASTREAM LTD 02.02.78-GB-004328 (29.07.77-GB-032041)
*(10.12.80) *BE-869-095 +A23l-02/38 B01f-03/04 C02f-01/68*
D/S: E(DT, FR, NL, SW)

Portable water carbonating appts. includes a pressure vessel with a valved bottom inlet to admit fresh water from a header tank, an upper discharge valve for carbonated water, and a pressurised CO_2 injection nozzle. The valves are pref. pistons rigidly interconnected to form a unitary plunger, and have equal effective areas exposed to vessel pressure so that the plunger is balanced.

The vessel head space pref. has a vent port normally closed by the outlet valve piston but connected to atmosphere during the initial stage of opening of the outlet valve. There is pref. a lever connected to the plunger and guided in a gate interrupting movement between both open and both closed positions at a point where the vent is open and the valves still closed. 21.7.78 as 300180 (9pp1358) (E).

WACK D15 84527 B/47 =EP G005-262
Mercury and its cpds. removal from waste industrial water - by adding reducing agent, settling, and filtration, esp. when treating water leaving chlorine mfg. plant
WACKER CHEMIE GMBH 02.05.78-DT-819153
*E32 J03 (10.12.80) *EP---5-262 C02f-01/70 C22b-43*
D/S: E(BE, CH, DT, FR, GB, IT, NL, SW)

Hg and Hg cpds. are sepd. from aq. solns. (I), esp. industrial waste waters, by redn. and filtration.

After a redn. step, (I) are clarified from Hg particles and dirt particles in a settling tank (II); and then the supernatant aq. soln. is withdrawn from (II) by deep bed filtration using a filter medium (pref. quartz sand) of particle size 0.02-2 (pref. 0.04-0.6)mm particle size; then Hg is removed from the deep-bed filter by backwashing into (II) and is deposited in (II).

The process is economic, requires no additional filtration aid and uses proven redn. steps for ionogenic Hg impurities. 2.5.79 as 101329 (5pp481) (G).

SULZ ★ D15 90512 C/51 ★EP --19-655
Temporarily locating connecting elements in filter bed floor - during their permanent concreting in aligned rows
GEBRUDER SULZER AG 31.05.79-CH-005084
J01 Q46 (10.12.80) B01d-23/10 C02f-03/04 E04g-15/04
D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, OE, SW).

Where a row of connecting elements for the passage of filtered water down into a main pipe must be held in fixed linear alignment parallel to other rows during the pouring and setting of concrete round the elements, temporary locating members are used. These consis of impact-resistant forming shells which at the desir intervals carry support pins for a resilient spreader consisting of rubber or plastic in cylindrical or barre shape and forced outwards through compression from screwed bolt and washer.

The installation of pre-fabricated drainage pipes requires the connecting elements to be precisely loca relative to the main pipe and each other in the filter f The forming shells, which are stiffened by a transver wall, can be removed and re-used.

16.08.79 as 102988 (12pp1480)
(G) ISR: GB-888202; US159099; FR1405568; FR101372

SULZ ★ D15 90513 C/51 ★EP --1
Backflushing water filter plant - with air entry holes in dip drainage pipes creating two air cushions
GEBRUDER SULZER AG 31.05.79-CH-005086
(10.12.80) B01d-23/10 C02f-03/04
D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, OE, SW).

A backflushing filter plant has parallel drainage pipes embedded in the bottom of the filter bed, each connect by a dip pipe to a collecting channel for the filtered wa Air access holes are drilled in the dip pipes and in the tubes leading to the filter nozzles in the drainage pipe produce two air cushions, extending over the entire ar of the filter bed.

This ensures that during the backflushing cycle the is uniformly distributed longitudinally and transversel and a simultaneous and uniform washing is ensured.

17.8.79 as 103014 (16pp39).
(G) ISR: FR-597406; GB--21120; FR1013722; DS-64736

SULZ ★ D15 90514 C/51 ★EP --19
Filter bed drainage tube nozzle - with floating plunger in sha open ports for air or water backflushing
GEBRUDER SULZER AG 31.05.79-CH-005085
(10.12.80) B01d-23/20 C02f-03/04
D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, OE, SW).

Drainage pipes, embedded along the bottom of a filter are fitted with filter nozzles with a shank entering the drainage pipe. These shanks have near the filter head large opening for water and at the other end a smaller passage for air. A floating plunger inside the shank c es the lower large opening at low water level.

This prevents the egress of the entire air through t large openings when the water level sinks during back flushing operations, using air and wash water simultan eously or alternately.

17.8.79. as 103015 (15pp39).
(G) ISR: DS-944723; GB1239971; DS1642860; DS-80078

SULZ ★ D15 90515 C/51 ★EP --1
Water filter bed tank - with embedded sealed passages for dip of drainage tubes in tank bottom slab
GEBRUDER SULZER AG 31.05.79-CH-005083
(10.12.80) B01d-23/10 C02f-03/04
D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, OE, SW).

The bottom slab of a concrete filter tank receives, du its construction, embedded short tubes with a flange a seal for the dip pipe from a prefabricated drainage pi which rests on the bottom slab through its filter nozzl heads. The dip pipes represent the connection for the trate from the filter bed to a collecting channel.

This facilitates the installation of the prefabricate drainage pipes and enables damaged or defective drai pipes to be exchanged with ease.

17.8.79 as 103016 (13pp39).
(E) ISR: FR1013722; US1633081; NL--97017; FR--629 FR1405568; GB-187259; FR2264578.

MINE- ★ D15 90521 C/51 ★EP --1
Treating rinse waters from metal pickling process - by treat with cationic resin, then eluting the resin with strong acid
MINEMET RECHERCHE 09.05.79-FR-011687
M12 (10.12.80) B01j-39/04 C02f-01/42 C23g-01/36 C25d-21
D/S:- E(BE, CH, DT, FR, GB, IT, LU, NL, OE, SW).

ters derived from rinsing metal pieces which have n pickled with strong acid are treated by (a) contact- with a cationic resin, then (b) eluting the resin with a≥4N n. of the strong acid used for pickling.
Pref. resins contain SO_3H gps. and are eluted with an d contg. metal ions (M) at concn. ratio M:acid (meas- d in g-equiv.) of ≯ 1/3, esp. ≯ 0.2. Esp. M are derived m the metal being pickled, and the eluate from stage is recycled to the pickling stage.
10.79. as 400765 (17pp1251).
ISR:- US3380804; J49127869; J50086845; US3847757; 3658470; US4012318; DT2758960.

DM/ D15 75522 C/43 =EP--19-704
ter purification using precipitant - by monitoring conductivity to trol rate of addition of precipitant for drinking water and uent treatment
TROMMSDORF K U 09.04.79-DT-914290
*T06 X25 (10.12.80) *DT2914-290 B01d-21/* C02f-01/52 +G05d-21/02*
S:- E(DT, FR, GB, IT, SW).

tering of the amt. of precipitant added to water reams is controlled by monitoring the conductivity of feed water stream. Determination of the min. conduc- ity is achieved by a sampling system with vacuum pump d conductivity cell. This is controlled by an electronic stem which then calculates the required dosage of the ecipitant. In order to carry out the determination at screet short time intervals, several conductometric lls can be used with automatic switching between them. Both potable and waste water streams can be purified, en when there are wide fluctuations in the impurity lev- s.
.80. as 101896 (19pp1053).
ISR:- AU-453977; DS1265071; GB-720161; 1133773; US3214964.

BR- D15 84660 C/48 =EP--19-794
ter purification appliance - with granular cleaning agent in cup erted in sleeve
CHEMIE BRITA GERATE 17.05.79-DT-919901
*10.12.80) *DT2919-901 C02f-01/28 +B01d-23 C02f-09*
S- E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

ter purificn. appliance consists of a funnel-shaped top h an integral sleeve at the bottom. The sleeve has an er ledge at its open bottom and accepts a cup with ainer discs on top and bottom. The cup is filled with ranular cleaning agent which is not soluble in water. ubular central extension to the cup which serves as a It can also be used as a handle to lift out the cup. The cup is sealed at its top rim against the sleeve and ures that undesirable infection by germs is minimised. .80 as 102645 (15pp39).
ISR: US2224577; FR2392940; US4061807; FR2309478; 163836; CH-569504.

Q ★ D15 90548 C/51 ★EP--19-805
er recovery from moist air - by adsorption on pad then forming m and condensing
MITSUBISHI DENKI KK 12.02.80-JA-016233 (15.05.79-JA-059857)
42 (10.12.80) E03b-03/28*
: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

st ambient air is blown through an adsorbing pad loc- within a housing. When the pad is laden, the ambient low is stopped and a stream of hot air is recirculated ugh the pad to evaporate the water to form steam. m is condensed on a liquid-cooled heat-exchanger to pure water. After the evapn. phase the hot air flow opped and ambient air is again passed through the pad. an embodiment the condenser is used to evaporate r vapour from a low quality water body. An addition- ndenser recovers water from this second source.

he appts. recovers water from moist air and can be in desert conditions.
80. as 102689 (30pp295).
SR: GB2003049; FR-817110; DS-665060; DS-731471; 45316; DT2624392; DT2702701.

FARH D15 90335 C/51 =EP--19-928
Solids liquid separation - in bag filters after gas injection forming uniform percolating coating on bag inside
HOECHST AG 05.06.79-DT-922778
*(10.12.80) *DT2922-778 B01d-37/02 +B01d-23/04*
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW)

Solids-liquid separation, based on a percolating filter of the bag type in which a percolating coating is formed on the inside of the tissue bag, is preceded by adding a gas such as air to the suspension to be filtered. This produces a floating layer of slurry on the surface of the liquid as it rises in the bag. This slurry contains the solids and forms a percolating coating on the inside of the filter bag.

The process allows industrial wastes to be treated even without any addn. of flocculants. The method allows the use of tissue of high porosity. Process is used for municipal sewage, industrial wastes from abattoirs, poultry farms, dairies, electroplating works metallurgical, paper, sugar industries, wine production and grinding departments.

31.5.80 as 103034 (9pp39)
(G) ISR: DS1584878; DS2621698; DS1658055; DT2625690; FR2247270.

DEGM ★ D15 90746 C/51 ★FR 2450-626
Granular bed filter partic. for ion exchange water treatment - has two beds on platforms joined by tie rods
DEGREMONT SA 06.03.79-FR-006416
J01 (07.11.80) B01d-23/18 C02f-01/42

A granular bed filter, comprises a vertical, cylindrical vessel contg. two superimposed beds each supported on a diametral, circular partition. Vertical tie-rods are now fitted to join the two, spaced, horizontal partitions.

Each of the partitions can be a single plate stiffened with vertical ribs. Alternatively, one of the two partitions can be made up of two horizontal circular plates spaced from each other and joined by vertical stiffening ribs. Ribs may be fixed, e.g. welded to other intersecting ribs and/or to tie-rods which then form a hub or a radiating structure.

Provides a water treatment vessel to contain two separate beds of granular ion exchange resin. Structure economy is provided by joining the two resin-bearing partition Pressure loss through the beds produces a loading on the beds which is now distributed evenly between the two partitions. 6.3.79 as 006416 (8pp448)

GESU- ★ D15 90754 C/51 ★FR 2450-785
Treating industrial effluent by sepn. of salts held in soln. - involves concn. of soln. prior to evapn. in salt pans
GENERALE SUCRIERE 05.03.79-FR-005616
(07.11.80) B01d-09/02 C02f-01/16 C13d-03/14

Process and a plant installation for sepg. a solid phase from soln. in a liq. The process is of the type in which sepn. takes place by evapn. in an open basin forming a 'salt pan'. The soln. is now pre-concd. before being passed to the basin. To do this, the soln. is first heated and then sprayed into a contacting tower, counter-current to a rising air stream. With recycling through the tower as necessary, the soln. is brought to a concn. close to crystallisation level and then transferred to an evaporator basin. The soln. is pref. reheated during its passage from the tower to the basin. This reheating can be carried out by passing the soln. through a heat exchanger supplied with low temp. factory effluent, e.g. at -50°-60°C, so that the soln. enters the basin at about 40°C. Several basins can be piped in series for progressive evapn. to separate salts by selective crystallisation.

Used in treatment of industrial effluent by sepg. solid phase salts held in soln. in the effluent. 5.3.79 as 005616 (8pp448)

BRTO ★ D15 90779 C/51 ★GB 1581-432
Aerobic sludge digestion at raised temp. - with preheating of inlet by heat recovery from outlet
BOC LTD 31.03.76-GB-012946
(17.12.80) C02f-11/02

Sewage sludge is digested in an appts. having an elongated treatment zone into which oxygen is pumped. Digestion raises the temp. of the sludge and heat from the discharge of the appts. is recovered by a heat exchanger which pre-heats undigested feed sludge.

In one embodiment the appts. has a U shaped cross section with a central thermally-conductive barrier which acts as the heat exchanger. In an alternative embodiment the appts. is configured as a spiral with adjacent turns being in a heat-exchanging relationship.

Appts. digests sewage sludge by aerobic action at a temp. of about 50°C. Preheating the inlet achieves a higher working temp. 22.6.77 (4pp295).

UNVO D15 23475 Y/13 =GB 1581-445
Deionizing resin bed regeneration via distribution conduit - with ball valved apertures giving different collection and distribution flows
UOP INC 19.08.76-US-715814
*J01 (17.12.80) *US4013-556 C02f-01/42 +B01j-47/02*

Appts. distributes flow in one direction at one rate and collects it at another rate, and consists of a pipe through which fluid can enter or leave the appts., and two sets of openings in the pipe, the first set allowing flow in either direction, and the second having valves which self-close when flow is in one direction. A screen around the pipe prevents the intake of particulates.

The valves are pref. closed by spring-biased balls. Demineralisers in boiler feed system can be regenerated economically. 18.8.77 as 034668 (5pp1376).

MONT D15 81187 Y/46 =GB 1581-671
Macro-crosslinked, porous, absorbing resins for water clarification - based on polyfunctional acrylate (co)polymers
MONTEDISON SPA 10.05.76-IT-023118
*A97 (A14) (17.12.80) *BE-854-383 C08f-12/36 C08f-20/18*

A porous resin of mean pore radius $\geq$5 Å and specific area $\geq 5 m^2/g$. is a homopolymer of a polyfunctional acrylate contg. $\geq$3 acrylic gps. or a copolymer of the acrylate contg. a copolymerisable monomer.

Pref. the acrylate is present in amt. 2-100 wt.% and is trimethylolpropane triacrylate or pentaerythritol tetra-acrylate or a copolymer of the acrylate with allylacrylate or ethylene glycol dimethacrylate.

The resin is prepd. by polymerising in suspension 2-100 wt.% of a polyfunctional acrylate contg. $\geq$3 acrylic gps. with 0-98 wt.% of an aliphatic or aromatic vinyl monomer or difunctional methacrylate monomer, at 30-120°C in the presence of a solvent for the monomer which is a non-solvent for the copolymer. The prod. is esp. used as an adsorber for purifying and/or decolorising aq. solns. contg. high mol. wt. polar or apolar cpds. from industrial processings. 9.5.77 as 019376 (5pp931).

PFIZ D15 04071 A/02 =GB 1581-802
Insoluble granular maleic anhydride terpolymers for scale control - prepd. by reacting maleic anhydride, (meth acrylamide and (methyl)styrene, (meth)acrylate or alkene in aromatic and ketonic solvent mixt.
PFIZER INC 23.03.77-US-780483
*A14 (A97) (17.12.80) *US4065-607 C02f-05/12 C08f-02/06 C08f-210 C08f-212/08 C08f-220/12 C08f-222/06*

Terpolymer consists of (a) 30-55 mol.% maleic anhydride, (b) 30-65 mol.% (meth)acrylamide and (c) 5-15 mole % of a third monomer selected from styrene, α-methyl styrene, alkyl(meth)acrylates having 1-8C in the alkyl gp. and 4-10 C 1-alkenes. The terpolymer has a relative viscosity of 1.02-1.10 in DMSO at a concn. of 0.5g. per decilitre, and a solubility of <0.10g. per g. of soln./ water at ambient temp. Pref. the third monomer is styrene or a mixt. of maleic anhydride, styrene and acrylamide.

The terpolymer is useful as scale control agent in the desalination of sea water. 21.3.78 as 011093 (11pp964).

UKAT ★ D15 90849 C/51 ★GB 2049-
Fluid tight joint - between container including fibre reinfor plastic and edge of metallic plate
UK ATOMIC ENERGY AUTH 17.04.80-GB-012750 (09.05.79-016057)
A88 J01 Q78 (17.12.80) F28f-09/02

A fluid-tight joint is made between a container of, or in-cluding fibre reinforced plastics material, and the edge a metallic plate. The container is formed with a periphe al lip thinner than the container walls. The metallic plat is formed with an arcuately curved edge.

The lip engages the upper surface of the plate and is bent inwardly to follow the arcuate edge of the plate. A band is tightened around the lip so that it conforms to th arcuate curve of the plate edge.

The joint may be used with a multi-stage flash desali ator. 17.4.80 as 012750 (1pp295).

GYAR/ ★ D15 C/51 ★HU T019-
Appts. for the magnetic treatment of liquids - e.g. for wa treatment for scale inhibition, or for high-strength concrete mfr.
GYARMATI J 19.01.75-HU-GA1268
J04 (28.11.80) C02b-05

VIZG- ★ D15 C/51 ★HU T019-
Purificn. of organic aq. effluents - by filtration, biological treatm and further filtration
VIZGEPESZETI VALLA 12.11.76-HU-VI1100
(28.11.80) C02c-01

CUKO- ★ D15 C/51 ★HU T019-
Appts. for clarifying raw liquors in sugar mfr. - inclu pretreatment and main clarifying step in one vessel
CUKORTERMELESI KI 14.09.78-HU-CU0158
(D17) (28.11.80) C13d-03

ERCS- ★ D15 C/51 ★HU T019-
Clarification of raw liquors in sugar mfr. - by treating with lime carbon di:oxide with intermediate alkali treatment
ERCSI CUKORGYAR 21.07.78-HU-EI0799
(D17) (28.11.80) C13d-03/12

MIZA ★ D15 90870 C/51 ★J5 5139-
Liq. compsn. for use as coagulating agent - comprises soln sulphur tri:oxide, ferric oxide and alumina
MIZUSAWA KAGAKU KOG 18.04.79-JA-046725
*E31 (E33) (01.11.80) B01d-21/**

Soln. (I) of SO_3, Fe_2O_3 and Al_2O_3 having one of the follo ing compsns. is claimed. C = 4-15 wt.% and (i) when $\leq$12 wt.% S $\geq -0.25F + 75.5$, S $\leq 100 - 4/3C$ when A 2.5, F $\geq 4/3C - 2.5$ when A = 2.5 - 4.1 + 3/5C or S $\leq$ 98.4-29/15C when A $\geq$ 4.1 + 3/5C, A $\geq$ 0.5 and F $\geq$ 2 (ii) when C $\geq$ 12 wt.%, S $\geq -0.25F + 75.5$, S $\leq$ 84 whe A $\leq$ 2.5, F $>$ 13.5 when A = 2.5 - 11.3, or S $\leq$ 75.2 w A $>$ 11.3, A $\geq$0.5 and F $\geq$2. (where S, F and A are m % of SO_3, Fe_2O_3 and Al_2O_3 on total amounts of them, an is wt. % of the total content of them in (I)).

Crystallisation can be prevented even if the concns. high. The following composition of (I) is pref. C = 6.1 % S $\geq -0.25F + 75.5$, F $\geq 4/3C - 2.5$, and A $\geq$ 2.5. 18.4.79 as 046725 (10pp42)

HITA ★ D15 90871 C/51 ★J5 5139-
Sedimentation sludge drainage control system - uses slu drainage model to estimate pond turbidity and to apply correc by using slurry concentration
HITACHI KK 20.04.79-JA-047898
J01 (01.11.80) B01d-21/24

System is for controlling an operation for draining slud precipitated in a sedimentation pond of e.g. a water pu fication plant and to automatically operate the pond.

To improve operational efficiency, the system now consists of a sludge drainage model, sludge drain sequ cer, water quality monitor, sludge drain monitor, data scanner and control output section. The drainage model used to estimate the turbidity in the pond, to correct th estimated turbidity by using the slurry concentration an to estimate the sludge drainage time, which is then giv as an output control signal. The monitor is used to mon

he measured water quality data and the scanner to and output the plant data. 20.4.79 as 047898 (3pp26)

★ D15 90872 C/51 ★J5 5139-807
cloth sludge cakes removal filter plates mover - uses rocating chain coupled to reversible motor to engage chain ted claws with filter plates
TA TEKKOSHO KK 18.04.79-JA-047456
1 (01.11.80) B01d-25/12

cture is for moving filter plates one after another removing sludge cake fromed between filter cloths across openings of the filter plates and upon cleaning ilter cloths in a filter press.

o easily and smoothly move the filter plate without iring manual effort, a reciprocation chain is coupled reversible motor to move the chain on which claws mounted to engage with the filter plates and filter nes, after projecting up from the chain elastically by effect of springs. Stoppers are provided for stopping chain as the filter plate is moved to and from one end ne filter press. 18.4.79 as 047456 (6pp26)

A/ ★ D15 90888 C/51 ★J5 5139-830
n. of ammonia from water - includes addn. of montmorillonite g. clay powder before filtration
ANAI M 18.04.79-JA-047635
35 J01 (01.11.80) B01d-37/02 B01j-20/10

en ammonia is removed from water by filtration after n. of clay powder contg. montmorillonite to the water, filtration-rate is increased by addn. of sand with the y to water.

After the filtration, the clay is regenerated by treatnt with diluted sodium hydroxide solution. For the eneration, the sodium hydroxide soln. is warmed using ar energy. 18.4.79 as 047635 (2pp42)

★ D15 90909 C/51 ★J5 5139-899
ogical denitrification of organic waste water contg. ammonium converting to nitrate or nitrite with activated sludge contg. fication bacterial and reducing with ammonium nitrogen-eria
ITTO CHEM IND KK 19.04.79-JA-047240
01.11.80) C02f-03/34

iological denitrification of ammonium nitrogen-contg. anic waste water by introducing it into aeration vessel hich ammonium is converted into nitrate or nitrite activated sludge contg. a large amt. of nitrification eria, then sending a mixt. of the sludge and then ted water to sepn. vessel at which the sludge is sepn., introducing the treated water into denitrification el in which nitrite is bioligically reduced by N_2 by the on of denitrification bacteria, followed by releasing open air.

he improvement comprises adding compressed water . with air having pressures greater than 3 kg/cm^2 ge pressure) to the mixt. of the sludge and the treated r after nitrification in wt. amt. at least equal to that e mixt. introducing it into the sepn. vessel at which sludge is sepd. by flotation, and recycling the sepd. ge to the aeration vessel within one hr. after introduc- into sepn. vessel, so that nitrification efficiency in aeration vessel is improved in a large extent, and the ge is completely recycled to the aeration vessel with- any rising in the sepn. vessel. 19.4.79 as 047240 34)

★ D15 90910 C/51 ★J5 5139-900
ment of river sludge - by addn. of sodium silicate and acid, ng gel, and mixing with sand after dewatering
TACHI SHIPBLD ENGG KK 18.04.79-JA-048344
1.11.80) C02f-11/14

ro i.e. a sludge accumulated at the bottom of rivers, lidified within short period into a soil so as to be ble to abandon in landfill sites with excellent strength out any leaching-out of heavy metals, by adding Na ate and acid so as to gel, and mixing with sand after tering. The amt. of the Na silicate added is 2-5 wt. % t. Hedoro calculated in terms of SiO_2 and the acid is in such amt. that Na silicate is throughly neutralised.

SiO_2 contd. in the liquor absorbs heavy metals (Hg, Cr, Cd and Zn etc.) contd. in the Hedoro after addn. of sand, and neutralises negative charge of clay granules as to stop Brown's motion. The dewatering property is improved and dewatering can be carried-out even under low pressure. The dewatering procedure is carried-out more effectively after crushing of the jelly-like coagulated Hedoro. 18.4.79 as 048344 (3pp34)

AGEN ★ D15 90919 C/51 ★J5 5140-151
Fluorimetric determn of concn. of microorganism - that bind specifically with fluorescent antibodies
AGENCY OF IND SCI TECH 18.04.79-JA-047490
(D16) (01.11.80) G01n-33/54

Concn. of microorganisms of a specific species is determined by a method based on fluoroescent antibody technique and comprises (1) treating the microorganism with antibody dyed withfluoroescent dye (e.g. fluorescein) to form the fluorescent antigen-antibody combination, (2) irradiating the combination and measuring intensity of the fluorescence photoelectrically, and (3) comparing the intensity with a calibration curve prepared with samples of known microorganism and concentrations.

The fluorescent antibody is prepared by labelling antibody (e.g. antibody recovered from blood serum of infected animal) with fluorescent dye. Microorganisms combined with the labelled antibody have greater specific gravity and can be easily separated from microorganisms of other species. The separated fluorescent combination is subjected to fluorimetry to measure intensity of the fluorescence.

The method is used to assess microorganisms polulation in activated sludge, etc. In contrast to conventional fluorescent antibody technique this method requires no microscope observation. 18.4.79 as 047490 (7pp173)

KURS ★ D15 91053 C/51 ★J5 5141-171
Water-insolubilising edible starch film - by dissolving chitosan salt in aq. soln. of starch, forming soln. into film and treating with alkali
KURARAY KK 20.04.79-JA-049258
A11 J01 (A88 A97) (04.11.80) A23l-01 A23l-03

Method involves dissolving chitosan salt in the aq. soln. of starchy material, forming the soln. into film and treating with alkali.

Chitosan is used in amt. 5% of the film material. The film is prepd. by spreading the soln. on a plate and drying it. Drying may be at room temp. Finally the film is immersed in aq. alkali soln.

Film shows excellent permeability characteristics, has excellent wet strength, is cheap to produce and can be also used as dialysis membrane, ultra-filtration membrane, etc. 20.4.79 as 049258 (4pp5)

AGEN ★ D15 91147 C/51 ★J5 5141-531
Gold recovery from alkaline water plating liq. - by adding 2-mercapto-benzotriazole, acidifying filtrate, adding 2-mercapto-thiazole, then treating soln. of complex with ion exchange resin
AGENCY OF IND SCI TECH 21.04.79-JA-049391
E13 M11 (05.11.80) C02f-01/62 C22b-11/04

To an alkaline metal plating waste liquid is added 2-mercaptobenzotriazole to produce a ppte. The ppte. is filtered, and HCl is added to give pH < 4. 2-mercaptothiazole is added to produce a ppte. The ppte. is dissolved in nitric acid and the soln. is treated with an ion exchange resin.

Gold is not pptd. in alkaline state but coexisting Co, Cu, Pb and Ni are pptd. The acidic filtrate contains the ppte. of gold complex with the organic substance. If this is burned in an electric furnace it generates offensive odours and is therefore treated with ion exchange resin. The gold is adsorbed to the resin and recovered as chloroauric acid at levels of e.g. 98%. 21.4.79 as 049391 (2pp53)

DAII ★ D15 91260 C/51 ★J5 5142-092
Additive for slurry fuel - contg. CMC or carboxymethyl starch, lignosulphonic acid salt or reaction prod. of benzene or naphthalene deriv. with formaldehyde
DAIICHI KOGYO SEIYAKU 20.04.79-JA-049374
A97 H06 (H09) (06.11.80) C10l-01/32

Additive for stabilising and improving the fluidity of slurry fuel consisting of powdered coal, oil and sludge formed by the treatment of waste water (i.e. activated sludge method)is described.

Additive contains 20-100 wt. % (a) condensn-prod. of sulphonated or sulphoesterified organic cpd. having benzene or naphthalene ring with formaldehyde, (b) lignosulphonic acid salt and; (c) CMC or carboxymethyl starch.

Organic material in the waste water sludge is utilised effectively as a fuel. Slurry has improved fluidity, transport properties and flammability, and rust formation on storage or in piping is minimal. 20.4.79 as 049374 (5pp170)

EBAI ★ D15 91300 C/51 ★J5 5142-505
Water filter membrane cleaning method - has soft sponge balls running along membrane surface with high pressure fluid
EBARA INFILCO KK 22.03.79-JA-033619
J01 P43 (07.11.80) B01d-13 B08b-09/02

A method for cleaning a membrane such as filtering membranes assembled in a water filter is claimed which removes impurities laid over the surface of the membrane after filtration. A soft substance such as sponge balls is used for cleaning the membrane by rubbing its surface.

To assure a long operation of the membrane for filtration, the soft sponge balls are stored in a first container and run along the membrane with a high pressure fluid so that they rub its surface and are drained from the filter, together with the fluid into a second container. The balls are returned by the fluid from the second container to the first. The fluid uses a liquid to be filtered. 22.3.79 as 033619 (9pp26)

MARU- ★ D15 91303 C/51 ★J5 5142-508
Coagulant for waste water colloids - comprises inorganic binder(s) contg. sea water components, and organic binders
MARUSHO SEIKI KK 23.04.79-JA-050702
*A97 E37 (07.11.80) B01d-21/**

Coagulant (I) contains ⩾ 1 inorganic binder (II) composed of components in sea water (III); as principal component and organic binders (IV).

(I) is used for coagulation of colloids in waste water. The addn. of (I) increases the solubility and degree of dissociation of polymer coagulant, resulting in acceleration of coagulation.

(II) is a mixt. of (III) and ⩾ 1 of $CaCl_2$ MgCl, Na_2SO_4, $NaCO_3$ Na borate Na silicate, Na phosphate, etc. is used. Examples of (IV) are glycolic acid, methylcellulose hydroxyethyl cellulose, carboxy methyl starch, etc. 23.4.79 as 050702 (3pp42)

MIUR ★ D15 91305 C/51 ★J5 5142-510
Waste water purificn. - includes gravity filtration with air blowing for fast flocculant removal
MIURA ENG INT KK 20.04.79-JA-049478
J01 (07.11.80) B01d-23/02

The waste flocculated water may contain HO-radicals such as Al(HO)3Fe(OH)3, which cause a high fluid resistance in water purificn. plant a filter.

The flocculant is easily and efficiently removed, if water is fed onto an inclined sieve made of very fine-meshed net from its upper end, leaving the water dropping into a tank located beneath the sieve, while air is blown toward the back side of the sieve to blow off a thin layer of aggregated floc from the front surface of the sieve. 20.4.79 as 049478 (3pp26)

JAOR ★ D15 91306 C/51 ★J5 514
Sewage or dirty water sludge treatment equipment - has res tank fitted with drum rotating at rate low enough to pr crushing of remelted sludge grains
JAPAN ORGANO KK 23.04.79-JA-050023
(07.11.80) B01d-33/02 C02f-11/20

Device for treating sludge drained from a sewage trea ment plant or dirty water treatm ent plant comprises pair of freezing-remelting tanks, reservoir tank and sludge drainage pump connected to the reservoir tank. Continuous dewatering means are provided.

To avoid crushing of aggregated remelted sludge grains, thus assuring stable operation of the following dewatering means, including a low-vacuum dewatering unit, the reservoir is provided with a rotary drum. Th latter rotates slowly enough to avoid crushing of the sl ge grains fed from the freezing-remelting tank, in ord to preventing precipitation of the grains in the reservo tank but to feed them stably. 23.4.79 as 050023 (5pp2

MITQ ★ D15 91309 C/51 ★J5 5142
Device for making water from gas vapour content - has first second bellows interconnected via separating plate to chambers with pressure difference monitored
MITSUBISHI ELECTRIC CORP 26.04.79-JA-051818
Q42 (07.11.80) B01d-53/04 E03b-03/28

Device for making water from the vapour content in a such as the atmos. in desert areas comprises a tank c taining an adsorbent for water, heater for heating a ga for heating the adsorbent until desorbing the water con adsorbed by it, and condenser for condensing the deso water content.

To easily detect the condition of clogging of the tank first and second bellows connected to each other via a arating plate are used to form two chambers, one com icating with the gas inlet side chamber of the tank, and other with a gas outlet side chamber of the tank, which separated by a zone charged with the adsorbent. A dete or for determining the pressure difference between the two bellows chambers is provided. 26.4.79 as 051818 (6pp26)

MITQ ★ D15 91310 C/51 ★J5 5142
Appts. for water prodn. from gas - has closed chamber contg. pieces which float in air, connected to gas inlet chamber
MITSUBISHI ELECTRIC CORP 26.04.79-JA-051819
Q42 (07.11.80) B01d-53/04 E03b-03/28

Appts. is for producing water from the water content gas such as the atmosphere in a dried area such as de It comprises a tank having a separation zone charged w an adsorbent for adsorbing the water content, heater f desorbing the water content, and condenser for conden the desorbed water content.

To easily detect clogging of the adsorbent in the ta separation zone, closed chamber containing light piece which easy float in air is connected to a gas inlet cham and outlet chamber partitioned by the separation zone i the tank. A light source and receptor are coupled with closed chamber to detect motion of the pieces due to th gas pressure difference between the chambers of the ta 26.4.79 as 051819 (6pp)

MITQ ★ D15 91311 C/51 ★J5 5142
Appts. for water prodn. from gas - has bed as several planar beds arranged along zigzag line
MITSUBISHI ELECTRIC CORP 25.04.79-JA-051846
Q42 (07.11.80) B01d-53/04 E03b-03/28

Appts. is for producing water from the water content gas such as the atmosphere in a dry district as in dese It comprises a column containing a bed filled with an a -bent, heater for desorbing the water content from the sorbent, and condenser for condensing the desorbed wa content.

To increase the water adsorption rate without incre ing the thickness of the bed. The bed consists of severa planar sub-beds arranged along a zigzag line, so that t wider side of each sub-bed faces a horizontal plane, i. the total thickness of the bed is not increased but the t

face area of the bed is increased. 25.4.79 as 051846 (5pp26)

TQ ★ D15 91312 C/51 ★J5 5142-518
pts. for water prodn. from gas - has adsorbent clogging detector liq. filled U/shape pipe with float in one limb
MITSUBISHI ELECTRIC CORP 25.04.79-JA-051847
Q42 (07.11.80) B01d-53/04 E03b-03/28
pts. is for producing water from a gas in dry atmosphes e.g. in deserts. It comprises a tank containing adsorbent bed heater for heating the adsorbant until sorbing the water content, and condenser for condensthe desorbed water. To detect clogging of the adsorit in the bed, a U-shaped pipe is connected at both ends a gas inlet and gas outlet of the tank and contains a uid. A float floats on the surface of the liquid at one d of the pipe and a detector detects the motion of the at and thus the level change of the liquid in the pipe, pending on the clogging condition of the bed. 25.4.79 051847 (5pp26)

TQ ★ D15 91313 C/51 ★J5 5142-519
ter prodn. in arid areas - has meter to measure pressure drop oss adsorbent bed
MITSUBISHI ELECTRIC CORP 25.04.79-JA-051848
Q42 (07.11.80) B01d-53/04 E03b-03/28
device for producing water in a dried area such as serts from a gas such as the atmosphere is claimed. comprises a tank containing a bed of adsorbent, heater r heating the adsorbent until desorbing the water content the gas from the adsorbent, and condenser for condenng the water desorbed.
The object is to detect easily clogging of the adsorbent the bed. The novelty is in that a means is provided in e tank to detect the load applied to the bed due to incree of the fluidic resistance of the bed as clogging increes, since the load represents the difference between e pressures at the gas inlet and the outlet side of the nk. The detecting device may be in a form of a load ter or spring coupled with a load detector. 25.4.79 as 1848 (5pp26)

RM ★ D15 91326 C/51 ★J5 5142-535
ter oxygenating unit - has impeller water intake supplement n air and agitated
KURIMOTO IRON WORKS KK (RAIK-) 20.04.79-JA-049357
P14 (07.11.80) A01k-63/04 B01f-07/16
evice for feeding oxygen into water is claimed to aer- water for cultivating fishes or for treating water. It mprises a casing immersed in the water, with an peller housed in the casing, a drive for driving the peller, and cover fixed to the lower end of the casing. e object being dissolve oxygen in water efficiently and implify the structure of the device.
A water intake port communicating a central area of impeller and a drain port communicating a space und the impeller are formed at the casing. An air pipe connected to the casing to introduce the outside air the casing and opened into a suction space of the eller. 20.4.79 as 049357 (3pp26)

N ★ D15 91337 C/51 ★J5 5142-587
enting generation of red water by abnormal plankton growth - by spraying sea water etc. with sodium percarbonate
YONICHI KK 00.00.79-JA-140945 (20.04.79-JA-048648)
34 (07.11.80) A01n-59 C02f-01/50
method comprises spraying sodium percarbonate in gion of red water or its expected region to prevent ration of red water. The sodium percarbonate is yed from a helicopter, a motor boat, or a ship onto egion of red water. The amt. of the percarbonate to prayed is 10-100 ppm which is not harmful to fish shellfish
an example 1ℓ of sea water contg. planktons was bled from the Inland Sea of Japan. 10 ppm of sodium arbonate was added to the sea water. When the result sea water was set for 240 minutes, it was found that lankton in the sea water became extinct.

Generation of red water can be effectively and simply prevented. 20.4.79 as 140945/79 Div.ex. 48648/79 (3pp51)

NIRS ★ D15 91338 C/51 ★J5 5142-588
Treatment of waste water contg. agricultural chemicals - includes addn. of alkali, anionic polymer and aluminium poly:chloride system, filtration and active carbon treatment
NISSO ENGG KK 24.04.79-JA-049688
(07.11.80) C02f-01/56
Polymer system aggregating agent, alkali, and an aluminium polychloride system assistant aggregating agent are added to the waste water contg. an agricultural chemicals e.g. thiuram etc. to aggregate the chemicals from the waste water. The aggregated chemicals are sepd. by filtration acid, filtrate is treated with active carbon to ad - sorb the residue of the agricultural chemicals. Typically the waste water contg. an agricultural chemicals was mixed with an anion type polymer aggregating agent and an aluminium polychloride system assistant aggregating agent and adjusted with NaOH to pH 7-7.5 to aggregate the chemicals. The aggregated chemicals was filtered with filter paper to obtain a filtrate. The filtrate was treated with active carbon to remove the residue of the chemicals. 24.4.79 as 049688 (2pp51)

SAKI ★ D15 91339 C/51 ★J5 5142-589
Industrial waste water purificn. - includes treatment with barium hydroxide or salt e.g. chloride to ppte. vanadium ions
SAKAI CHEMICAL IND KK 25.04.79-JA-051678
(07.11.80) C02f-01/62
The method comprises adding a water soluble barium salt to waste water contg. vanadate ions to ppte V cpds. The barium cpd. is barium hydroxide, barium chloride, barium sulphide, barium hydrogen sulphide, barium carbonate or barium oxalate.
Typically waste combustion gas exhausted from plant burning heavy oil was desulphurised in contact with an aq. soln. of NaOH to by-produce a waste soln. contg. 45 ppm of meavanadic acid. 140 g of barium chloride ($BaCl_2.2H_2O$) was added to $1m^3$ of the waste soln., and stirred to obtain ppte. The ppte was filtered off from the soln. to obtain a treated soln. contg. below 1 ppm of metavanadic acid.
Vanadate ion difficult to be removed can be effectively pptd. from the waste soln. 25.4.79 as 057678 (2pp51)

JAOR ★ D15 91340 C/51 ★J5 5142-590
Hydrazine contg. waste water purificn. - includes addn. of copper salt, oxidn. with air, filtration, and treatment with cation exchange resin
JAPAN ORGANO KK 23.04.79-JA-049076
(07.11.80) C02f-01/74
After addn. of an aq. soln. contg. a copper salt of a mineral acid to the waste water, and oxidising the resulting waste water with air in an oxidising tower to decompose the hydrazine of the waste water and by-produce, insoluble copper the oxidised water from the tower is passed through a filter to separate the insoluble copper. The resulting a filtrate; is passed through a cation exchange resin contg. tower to remove the residual copper ion. This is followed by addn. of aq. soln. of a mineral acid to the insoluble copper deposited on the filter to obtain an aq. soln. contg. a copper salt of a mineral acid, and circulating the aq. soln. to the tower. 23.4.79 as 049076 (4pp51)

MITR ★ D15 91341 C/51 ★J5 5142-596
Ammonia contg. waste water purificn. - by passing through gas permeable tube contg. ammonia utilising bacterial sludge and passing oxygen contg. gas
MITSUBISHI RAYON KK 20.04.79-JA-049238
(07.11.80) C02f-03/34 C12n-01
The method comprises immersing a bundle of tube type porous membrane in waste water contg. ammonia type nitrogen, depositing waste sludge contg. nitrate bacteria on the other sulface of the membranes introducing oxygen or a mixed gas of oxygen and carbon dioxide into the inner side of the membrane, passing it through the wall of the

membrane to the outer side of the membrane to supply it to the waste sludge deposited on the tube, and thereby biologically introducing ammonia type nitrogen of the waste water with the bacteria of the sludge to nitrogen oxide.

Bundles of hollow type porous membrane of 270 μ outer diameter and 220 μ inner diameter were immersed in waste water contg. 193 ppm of ammonia type nitrogen. Air of 0.5 Kg/cm^{2}G was supplied into the inner side of the membranes, and passed through the wall of the membranes into the waste water. As the result of it, ammonia type nitrogen of the waste water was reduced to 2ppm 20.4.79 as 049238 (4pp51)

MITR ★ D15 91342 C/51 ★J5 5142-597
Biological purificn. of nitrate cpds. contg. waste water - using passing through gas permeable nitrate utilising bacterial sludge layer contg. tube and passing nitrogen
MITSUBISHI RAYON KK 26.04.79-JA-051836
A88 (07.11.80) C02f-03/34

The method comprises immersing a bundle of tube type porous membranes in waste water, depositing waste sludge contg. nitrate utilising bacteria on the outer surface of the membranes, supplying a nitrogen gas into an inner side of the membranes to pass it through the membranes into the waste water, and biologically decomposing nitric acid type nitrogen of the waste water to nitrogen. The outer dia. of the tube type membrane is 0.05-1 mm. the gas permeability is 10-300 ℓ/m^{2}hr., and the pore size is below 0.3 μ.

Typically bundles of tube type porous membranes made of polypropylene were immersed in waste water contg. 1.6 g of KNO_3. A nitrogen gas of 0.3 kg/cm^{3}G was introduced into the membranes, and passed through the porous wall of the membrane into the waste water. As the result of it, NO_3^- of the waste water was reduced to 1 PPm. 26.4.79 as 051836 (4pp51)

PKMA- ★ D15 C/51 ★J5 5142-598
Stabilisation of excess sludge - simultaneously with denitrogenation of waste water
VEB PKM ANLGENBAN L 19.04.79-DL-212334
(07.11.80)

17.4.80 as 049628

EBAI ★ D15 91343 C/51 ★J5 5142-600
Biological purificn. of waste - includes recirculation of active sludge from digesting process
EBARA INFILCO KK 25.04.79-JA-051087
(07.11.80) C02f-11/14

Method comprises treating waste in an anaerobic type digesting vessel to obtain a digested liquor, for mixing with the waste sludge exhausted from the waste purifying vessel to obtain a mixture. The mixture is biologically treated with activated sludge in an aeration vessel to obtain a treated liquor, a cationic polymer type aggregating agent is added to the treated liquor, and the resulting liquor is dehydrated to separate solid substances.

Waste is digested in an anaerobic type digesting vessel to obtain a digested liquor which is introduced with the waste sludge exhausted from a deject a (sic) purifying vessel into an aeration vessel and biologically treated with activated sludge. The treated liquor is introduced via a precipitating vessel into the dehydrating device to separate solid substances, wherein a cationic polymer type aggregating agent and one portion of concn. sludge is added to the treated liquor. 25.4.79 as 051087 (5pp51)

AZAZ D15 08486 U/07 #J8 0046-201
Thermal desalination - employs adiabatic evaporator to produce very cheap drinking water
AZERB AZIZBEKOV PETROCHE (AZE -) 24.03.71-FR-010395 (19.03.71-JA-015243)
*(21.11.80) *FR2130-880 B01d-01 C02f-01/16*

A device for thermally desalting a liq. e.g. sea water and steam turbines in power plants is claimed. To a cold water line are connected both steam condenser connected to an adiabatic evaporator and a water-water heat exchanger connected between the evaporator and other condenser connected to a steam turbine. 19.3.71 as 015243 B01d-1/00, C02f-1/16 (21.11.80)AZERB AZIZBEKOV PETROCHEM. (3pp)

AGEN D15 13205 B/07 =J8 0046-
Purificn. of emulsified effluent e.g. contg. cutting oil - by add anion exchange resin and agitating to bring oil to surface removal
AGENCY OF IND SCI TECH 08.06.77-JA-067605
*A91 H07 J01 (21.11.80) *J54003-363 +B01d-17/02*

An emulsified effluent, e.g. water-soluble cutting oil-contg. effluent etc. is purified easily and economically adding an anion exchange resin. e.g. Dialon (RTH), Dow ex (RTH) and Amberlite (RTH) etc. followed by agitatio to destroy the emulsion and bring the oil components to the surface of the effluent for removal.

It becomes not necessary to carry-out dewatering of sludge; and the anion exchange resin (used as the treati material) is easily sepd. from the treated effluent. The regeneration or incineration of the adsorbing material i carried-out at lower cost etc.

In an example, 1 g. of a strongly basic II-type anion exchange resin (Diaion PA412) is added to 100cc of emu -sified effluent contg. 0.01% of nonionic surfactant, polyoxyethylene nonylphenoiether and 0.1% heavy oil (pH 6.65), and agitated for 1 day at 25°C. The turbidity decrease was 96.0%.8.6.77 as 067605 B01d-17/02, (21.11.80) AGENCY OF IND SCI TECH (2pp)(J54003363)

AGEN ★ D15 91418 C/51 ★J8 0046-
Oil removal from emulsion type waste water - using dev comprising treating tank connected to reservoir with overflow pip
AGENCY OF IND SCI TECH 02.02.78-JA-011002
J01 (21.11.80) B01d-17/02

Device for removing oil etc. from waste water contg. suspended oils such as water soluble cutting oils compri ses a treating tank connected to a reservoir having an overflow pipe so that the water circulates between the ta and reservoir. 2.2.78 as 011002 B01d-17/02 (21.11.80) AGENCY OF IND SCI TECH (3pp26)(J54104654)

MITO ★ D15 91419 C/51 ★J8 0046-
Filter press for treating aq. sludge - comprises filter cloths arran between filter plates and passing over vertically movable roller S/shaped line
MITSUBISHI HEAVY IND KK 20.12.77-JA-153358
(21.11.80) B01d-25/32

Press. comprises filter cloths between filter plates, a vertically movable rollers. Each filter cloth passes ove each pair of rollers along a *S*-shaped line, while the upper and lower ends of each filter cloth are fixed. 20.12.77 as 153358 B01d-25/32 (21.11.80) MITSUBISHI HEAVY IND KK (3pp26)(J54085477)

FUSO- ★ D15 91423 C/51 ★J8 0046-
Fluid stirrer - for stirring agglomerant with river or lake water and collecting resultant flock
FUSO KENSETSU KOGYO 04.04.77-JA-038657
(21.11.80) B01f-05

Device is for stirring a fluid such as raw water from rivers, lakes, etc., with an agglomerant to collect res tant flock. It comprises a stirring tank, to which the flu flows naturally vortically down with the help of porous plates swingable depending on the flow speed of the fluid 4.4.77 as 038657 B01f-5/00 (21.11.80) FUSO KENSETS KOGYO KK (3pp26)(J53124375)

TOYW ★ D15 91424 C/51 ★J8 0046-
Kerosene and wax contg. waste water treatment - comprises water sepn., removing the oil phase by centrifugation, fin passing water through fibre-filled column
TOYOTA CENT RES & DEV 06.05.71-JA-030330
(21.11.80) C02f-01/40

Method comprises adding $MgCl_2$, $CaCl_2$ $MgSO_4$ $Mg(NO_3)_2$ or $Ca(NO_3)_2$ to kerosene- and wax-contg. waste water to cause oil-water phase sepn. The oil phase is removed b

ifugation, and the water passed through fibre-filled
nn.
Method is useful for treating waste water from
ashing. 6. 5. 71 as 030330 C02f-1/40 (21. 11. 80)
)TA CENT RES & DEV (6pp83)(J47044258)

D15 44726 B/24 =J8 0046-237

ne calcium ion contg. water prodn. - using membrane-free . with single electrode immersed in water supply and supplied pecified voltage

JIMOTO S 07.10.77-JA-121114
*3 (21.11.80) *J54054-971 +A23I-01 C02f-01/46 C25b-09/04*

ess comprises immersing a single electrode in water applying voltage of>200 Hz frequency. The appts. nput terminals to connect with commercial power ce, transformer with prim. and sec. winding. single ut terminal, electrode connected with the output inal. Prim. winding of the transformer is connected een the input terminals and one end of the prim. ing is connected with the output terminal in series ugh high impendance, discharge tube and the terminal Since only one electrode is used and there is no mem- e in this appts. it is simple in structure and may be ily maintained. 7. 10. 77 as 121114 C02f-1/46, -1/00, C25b-9/04, (21. 11. 80) FUJIMOTO S (2pp) 054971)

D15 42326 A/24 =J8 0046-238

ying effluents contg. phenol and/or formaldehyde - by ation using chlorite(s) in the presence of formaldehyde in given s

EUTSCHE GOLD & SILBER 17.12.76-DT-657192
*35 E14 J01 (E37) (21.11.80) *DS2657-192 C02f-01/76 C02f-09*

cess is described for the purification of effluents g. phenol or phenol-formaldehyde with ClO_2. The ent is treated with alkai(ne earth)metal chlorites (I) e presence of formaldehyde, with wt. ratio of for- lehyde phenol is 0.5-2:1 and the molar ratio of phenol formaldehyde to chlorite is 1:1. 2-2.
Process is applicable to the effluents from phenol nesis, coking operations and gasification and from the n. of phenoplates. Almost no Cl_2 is formed with the which latter also never exceeds its solubility limit. process is esp. applicable to effluents contg. 0.01-1 pheno. and/or formaldehyde, both of which chem- are quantitatively oxidised. 17. 12. 77 as 151222 17. 12. 76-DT-657192) C02f-1/76, 9/00, (21. 11. 80) TSCHE GOLD & SILBER (11pp)(J53076554)

★ D15 91532 C/51 ★SU-730-913

ise countercurrent washing of sulphate cellulose - using in last aq. effluents biologically purified as washing liquid to avoid fresh water, used in paper and prods. mfr.

LLULOSE PAPER IND RES 19.09.77-SU-523642
(30.04.80) D21c-09

ise countercurrent washing of sulphate cellulose is oved by using as a washing liquid for the last stage fluents biologically purified to a biological oxygen nd of 5-60 mg O_2/l; the pH is 6.5-8.5.
this method the need of fresh washing water is nated and, hence, the effluent vol is reduced.
pically the above method was compared with the use pn condensate as washing liquids. The washing ef- as the same. The density of the filtrate for regen- n was higher for the biologically purified effluents or the condensate.

n, Ya. V., Grigoreva, N. K., Danilov, G. E., et al
6/30. 4. 80. 19. 9. 77. as523642(4pp70).

★ D15 91639 C/51 ★SU-731-982

distributor for falling-film evaporator - has cylindrical inserts d inside heating tubes and having slit-like opening through liq. emerges

FIMOV L I 11.11.73-SU-963816
05.80) B01d-01/22

l-distributing device is used for the internal surfaces pipes in evaporating equipment with falling film, n the dairy and food industries, and sea-water distn

It is made as a cylindrical insert with slit-like openings in the side surfaces. These inserts are mounted in the vertical filming evapn. appts. The rate at which the film moves as it forms is increased, as a result of raising the rate at which the liq. comes out of the holes, by fitting the insert with bottom and sides at the top end. The slit-like openings are located above the bottom, and one of the edges of the opening is bent back along the curve of theperiphery.
Trofimov, L. I., Leverash, V. I., Bul. 17/5. 5. 80. 11. 11. 73. as963816(3pp29).

TROF/ ★ D15 91640 C/51 ★SU-731-983

Falling film evaporator - has vertical tubed body to form and heat films by steam and film breaker made as projections on tube internal surface

TROFIMOV L I 27.04.77-SU-480762
J01 (05.05.80) B01d-01/22

Falling film evapn appts is used in the chemical, dairy and food industries, as well as for sea-water distillation. It consists of a vertical body in which heating tubes are disposed, with means forbreaking the film of evaporating solution, plus a separator. Productivity is increased by reducing the resistance to the release of secondary steam; the film breaker is made as projections on the internal surfaces of the lower ends of the tubes. Each tube is also fitted with a sloping trough underneath the projections and the internal surface between the projections and the lower end of the tube is coated with a water-repellent material.
Trofimov, L. I., Leverash, V. I., Bul. 17/5. 5. 80. 27. 4. 77. as480762(3pp29).

HALU= ★ D15 91674 C/51 ★SU-732-019

Centrifugal separator for highly dispersed suspensions - has rotor insert consisting of single- or multistart spirally rolled metal gauze fixed between conical trays

HALURGY RES PLAN 04.08.77-SU-515508
J01 P41 (09.05.80) B04b-01/04

Improved quality for fine purification of highly dispersed suspensions, e.g. for purifying waste water, using centrifugal separator, is ensured. The rotor of conical barrel shape contains an insert consisting of spirally rolled metal gauge strip (or strips in multistart roll) fixed between two conical trays.
The light fraction of the separated suspension flows through the insert to its discharge nozzle. The solid particles carried out with the stream of liquid lose their velocity on the metal gauze, slide down to the tray and are ejected to the wall of the rotor. Then, the concentrated precipitate is released through the nozzles located at the largest diameter of the rotor's casing. The insert is rolled in the direction opposite to the rotation of the rotor.
Slesarenko, V. F. Bul. 17/5. 5. 80. 4. 8. 77 as 515508 (3pp)

WATE= ★ D15 91729 C/51 ★SU-732-210

Water purificn. equipment for turbid natural waters, etc. - has multistage tank with perforated tubes and floating filter charge operating in pulsing mode

WATER ENG HYDROGEOL (MORE=) 10.03.78-SU-584151
(05.05.80) C02b-01/26

The equipment is used primarily for low or medium turbid natural water or for the final purificn. of effluents. It consists of a multistage settling tank, underneath which is a residues-thickener, floc-forming chamber with filter charge and distributing system forthe water being processed, clean water collector, and residues separator. Productivity is increased as a result of preventing silting by the filter charge, by fitting the floc-forming chamber with a perforated bottom disposed in the top part of the equipment above the residues-separator. The charge consists of floating grains with density less than 1.
Mirkis, I. M., Bagotskii, Yu. B., Afanasev, V. A., et al
Bul. 17/5. 5. 80. 10. 3. 78. as584151(4pp29).

GEOM= ★ D15 91730 C/51 ★SU-732-211
Iron cpds. removal from subterranean water by aeration - using compressed air to lower cost by simpler method retaining chemical compsn. of highly mineralised water
GEOMINVOD HYDROGEOL 14.07.77-SU-501375
E31 (05.05.80) C02b-01/26
Removal of Fe from subterranean water(e. g. for water supply esp. for heat exchangers, NaOCl prepn. and balneotechnical use viz. therapeutic(swimming) pool includes aeration and subsequent filtration.
The process is simplified and cost of treating highly mineralised water while retaining the chemical compsn. of the water is reduced by aerating at ratio water:air = 1:(30-35).
Water(contg. ≤ 40 mg/l of Fe^{2+} ions) is added to the top of the aerator(of height at least 2m) and compressed air is added from the bottom. The aerated water is filtd. at 6m/hr through granular filter(thickness at least 2m; granular size 2-10mm) and then clarifier-filter(thickness 1-1. 4m).
Evstafev, V. P. , Nikoladze, G. I. , Pen, E. Z. , et al Bul. 17/5. 5. 80. 14. 7. 77. as501375(4pp114).

GORL/ ★ D15 91731 C/51 ★SU-732-212
Continuous purificn. of waste water from urea mfr. industry - by spray-sepn. premixing new waste water with air emitted from evaporator
GORLOVSKII D M 05.01.78-SU-566112
A41 C04 E16 (05.05.80) C02c-05
Continuous purificn of waste water from urea mfg industry by mixing circulated and fresh streams of waste water with air, evapg. , spray-sepg. and emitting air-water vapour into the atmos. lowers urea loss by premixing the fresh stream with air emitted from the evapn. zone.
This practically eliminates loss of urea(during spray-sepn) and prevents crystallisation of urea on the spray appts. by lowering the concn in waste.
The fresh stream addn may be in at least 3 parts, e. g. sprinkled under, over and into spray-collector.
Gorlovskii, D. M. , Kucheryavyi, V. I. , Sineva, K. N. , et al Bul. 17/5. 5. 80. 5. 1. 78. as566112(3pp114).

BELY/ ★ D15 91732 C/51 ★SU-732-213
Removing Gp/II metal cpds. from industrial aq. waste - using sodium hydro-alumino-carbonate treatment for simultaneous pptn. of all Gp/II metal ions
BELYKH V D 09.11.77-SU-540264
E32 J01 (05.05.80) C02c-05/02
Removal of gp-II metals from waste water(e. g. metallurgical and chemical technological solns) includes treating with a Na-contg. reagent and sepg. off ppte.
The process is simplified to give simultaneous pptn. of all Gp II metals by treating with Na-hydroalumocarbonate(I)($Na_2OAl_2O_32CO_33H_2O$)using dosage 1. 1-2 moles (I) per mole of total metal impurity.
The one-stage method uses only one reagent and does not require pH correction in the purified water viz. prod has pH 8. 4-8. 6 which satisfies domestic-drinking water std. .
Belykh, V. D. , Berger, A. S. , Kotsupalo, N. P. , et al Bul. 17/5. 5. 80. 9. 11. 77. as540264(3pp114).

MAKE/ ★ D15 91733 C/51 ★SU-732-214
Biological purification of waste water - by flow aeration using formaldehyde addn. to increase active slime biomass growth rate
MAKEEVA E N 09.01.76-SU-311109
(05.05.80) C02c-05/10
Biochemical purificn of waste water(includes flow aeration in presence of active slime.
For max. growth active slime biomass over shorter period 50-300 mg/l HCHO are added to water.
HCHO is directly assimilated by microorganisms by redn. (serintransoxymethylase) metabolic route(without need for HCHO oxidn) to increase biological growth rate by 2-3 fold HCHO assimilation is 2-6 times faster than for other organic cpds. present in the water.
Waste water already contg. HCHO(e. g. from isoprene and polyisoprene rubber prodn) is esp. suitable.
Makeeva, E. N. , Goremykina, L. F. , Taradin, Ya. I. , et Bul. 17/5. 5. 80. 9. 1. 76. as311109(3pp114).

SHVE/ ★ D15 91734 C/51 ★SU-73
Purificn. of domestic sewage by aeration and clarification - inc degasification step prior to final clarification with recirculati recovered gases
SHVETSOV V N 28.01.77-SU-447782
(05.05.80) C02c-05/10
Domestic sewage is biochemically purified by:primar clarification; treatment in an oxidn. tank with circula gases from the space baove the water plus make-up C using an aerator; degasification of the treated sludge, sped. gas being added to the circulating gas mixt. in oxidation tank; secondary clarification and final purifi
Inclusion of the degasification step reduces the loa ing on the final clarification and purificn. stages and reduces the cost of the process. Degasification is carr out using vacuum pump equipt.
Shvetsov, V. N. , Morozova, K. M. , Bulanyi, A. Ya. , et al Bul. 17/5. 5. 80. 28. 1. 77. as447782(4pp314).

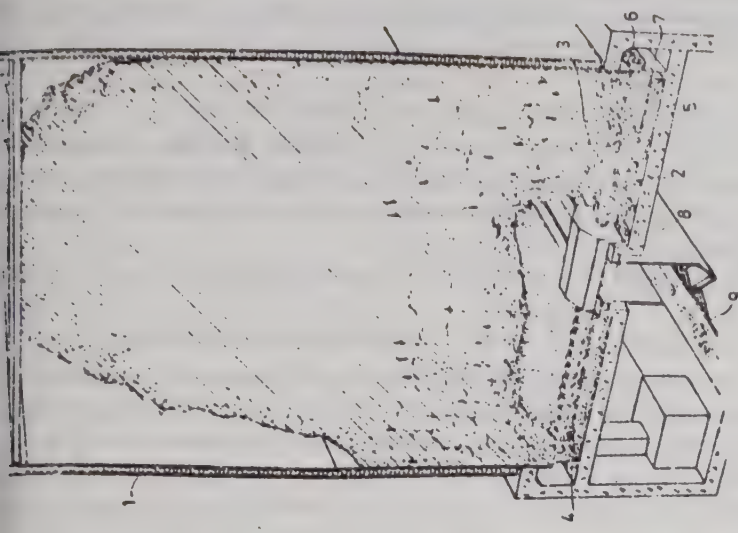
FRUN/ ★ D15 91735 C/51 ★SU-73
Removal of heavy metal ions from aq. electrolysis effluents passing through bath containing switching electrodes which electrical field travelling wave
FRUNZE POLY 20.04.77-SU-477641
(05.05.80) C02c-05/12
Method is used for purifying effluents from heavy-met impurities, e. g. chromium, zinc, copper, lead, iron, etc. obtd. from electroplating wks. The purificn. process is effected in an electrolysis bath containing a la number of electrodes. The degree of electrolytic purificn. is increased by introducing into the system travelling waves of an electrolytic field, in which the swi ching time of the electrodes is given by expression(I):

$$O < t_s \leq \frac{1}{4V} \quad (I).$$

In the expression l is elec rode length; v is speed at which the effluent is movi
Initial current density is 140-240 A/m^2.
Grich, I. M. , Taraskii, V. V. , Turovskii, N. S. , Bul. 17/5. 5. 80. 20. 4. 77. as477641(3pp29).

CHEN/ D15 64659 C/37 =US 423
Portable water prodn. from brine - by series of freezing and me steps on vapour and slurry produced by flash evaporator
CHENG C Y 26.02.79-US-015343
*J01 (02.12.80) *EP--15-157 B01d-09/04*
Water can be sepd. from aq. solns. by flash vapourisi and freezing the soln. to form a low pressure water va and ice. The ice is purified and melted in heat conduc conduits under a high pressure and the water vapour is sublimed to form ice on the outside of the conduits. T ice on the conduits is dissolved periodically using a co centrate on the feed solution. Latent heat of desublim is used to melt the ice.
Brackish and sea-water can be desalinated in a con paratively cheap process. 26. 2. 79 as 015343 (9pp137

ARME- D15 50680 B/27 #US 423
Rectangular biological effluent treatment vessel - fitted rotating screws in the bottom and through which oxygen upwards from the bottom
ARMERAD BETONG VAGF (BIOL-) 15.07.77-SW-0 (12.01.79-US-003395)
*(02.12.80) *SW7708-243 + C05f-07 C05f-11/06*
Organic material is continuously decomposed as it sin through a vessel in the presence of O_2-contg. gas intr



duced near the vessel bottom. A screw at the bottom of the vessel moves back and forth horizon-tally to divide

e mass and transport it to a discharge point. The gas evenly distributed across the vessel by passing it rough a particulate layer and a layer of treated organic aterial.

Pref. the particulate is coarse gravel or shingle. 1.79 as 003395 (5pp1376).

)WC ★ D15 91955 C/51 ★US 4236-973

emoval of volatile contaminants from water - by countercurrent ipping with gas or vapour

DOW CHEMICAL CO 14.05.79-US-039073 (30.05.78-US-910175)

(02.12.80) C02b-01/04

rganic materials of normal b. pt. above 200°C and having relative volatility with respect to water of at least one e removed from contaminated water by passing a current a vapour through a moving stream of the water in fficient amts. to volatilise at least part of the contami-nt. Organic materials which can be removed include lorinated phenols, phthalate esters, phosphate esters, osphorothioate ester, chlorinated benzenes, chlorinated henyls, polynuclear aromatics, (alkyl)nitrobenzenes, loro(cyclo)alkenes and chloroethers.

The contaminants are easily removed. Cheap stripping ours e.g. air can be used. Direct contact between the ter and the agent used to absorb or adsorb the contami-nt is avoided. 14.5.79 as 039073 (9pp955).

T- D15 70800 Y/40 =US 4236-974

moval of hydrocarbons etc. from industrial waste water - by pn. then full oxidn. of exhaust impurities by self ignition

BERTRAMS H AG 18.06.76-CH-007806

*+Q73 (02.12.80) *BE-855-423 B01d-03 C02f-01/04*

ste water organically contaminated is purified using its. consisting of a stripper to separate the waste into er and vapour, the water contg. about 2% low and high t. impurities; a chamber in which the vapour is com-ted; and a forced evapn. system having 3 stages for her concentrating the water, the vapour from the first ng combusted in the chamber and from the other 2 is lised in respective oxidation chambers. The purified te from the oxidn. chambers is supplied to 2 heat ex-ngers used to raise the temp. of the vapours entering oxidn. chambers. The waste vapour from the ex-ngers is supplied to the first 2 stages to condense puri-vapour into H_2O. 22.2.79 as 014167 (8pp1376).

– D15 39244 B/21 =US 4236-987

elective membranes contg. siloxane in an inert carrier - for use ectrodes for measuring cation concn., for deionising water etc.

RESENIUS E CHEM PH 14.11.77-DT-750807

*97 J01 X25 (02.12.80) *DT2750-807 +G01n-27/30*

elective electrode, which is selective w.r.t. pre-rmined alkali(ne earth)metal ions, comprises (a) a brane comprising (i) a carrier membrane composed non-ion selective carrier and (ii) an ion selective rial in intimate contact with the carrier (I); and (b) rical conducting means in intimate contact with the brane.

I) comprises ⩾1 predetermined molecular species ex-ing ion selectivity w.r.t. predetermined alkali(ne earth) metal ions. The molecular species are open chain, branched chain or cyclic siloxanes comprising Si-O- gps. The O atoms of the siloxanes have hydrophilic properties and the siloxanes are substd. by lipophilic moieties.

Membrane has constant quality and good shelf life. Prodn. costs are reduced. 13.11.78 as 960157 (5pp982).

KING/ ★ D15 91961 C/51 ★US 4236-990

Self-cleaning electrode system for treating liq. - has two electrode plates defining passage for pressurised liq. sheet which cleans electrodes during treatment

KING A S 29.05.79-US-042775

J03 X25 (02.12.80) C02f-01/46 C25b-09 C25b-11/02

Self-cleaning electrode system for treating liq. e.g. to cause agglomeration of suspended particulates, comprises a pair of electrode plates defining between them a flat restricted passage for liq. Liq. is supplied to the passage through an inlet inboard of the periphery of the plates at a pressure sufficient to maintain the passage filled with a pressurised liq. sheet which exits from an outlet at the periphery of the plates.

One of the plates has its periphery set inwardly w.r.t. that of the other plate which has a continuous marginal groove located inboard of its periphery but outboard of the periphery of the first plate. This causes the liq. sheet to assume an umbrella-like configuration as it is discharged from the outlet.

The pressurised liq. sheet flowing through the passage cleans the electrodes as it is treated by them. Discharging the liq. sheet in an umbrella like configuration promotes aeration of the discharging liq. 29.5.79 as 042775 (5pp67).

THEM/ ★ D15 91962 C/51 ★US 4236-992

Brine electrode having long life - comprises laminate of platinum group metals with tantalum or niobium on titanium base

THEMY C D 06.08.79-US-064073

E36 J03 X25 (02.12.80) C25b-01/26

Electrode for electrolysing brine comprises a laminate composed of a platinum group metal foil bonded to an inter-mediate layer of tantalum, niobium or alloys thereof. The layer is bonded to a substrate of titanium or alloys thereof. The platinum group metal is chosen from platinum, rhodium, iridium, ruthenium or alloys thereof. The laminate has bonding alloy zones and between most of the interfaces between the foil and the layer, and between the layer and the substrate.

The electrode can operate for over 2 days at voltages above 100 volts with watt densities of 100-1000 per sq. in. 6.8.79 as 064073 (6pp1050).

CONT- D15 23637 A/13 =US 4236-999

Solid separation from aq. medium suspension - using rotating drum sieve with circumferential axially parallel spaced sieve wires

CONTRA-SHEAR HOLDIN 17.09.76-NZ-182084

*J01 +P41 P43 (02.12.80) *DT2741-710 +B07b-01/24*

Screening appts. for sepg. liqs. and solids consists of a hollow drum rotatable about a horizontal axis and having spaced screening wires parallel to its axis around its periphery, and an inlet for the suspension on the interior drum wall directing it oppositely to the rotational direction.

Pref. the wires are wedges with the broad end facing the drum interior. 27.11.78 as 964055 (+12.9.77-US-833466) (12pp1376).

ZURN- ★ D15 91965 C/51 ★US 4237-002

Sewage treatment by adsorption in activated carbon bed - treating in biological system and adsorbing in second carbon bed

ZURN IND INC 24.01.79-US-006421

(02.12.80) B01d-15

Sewage is passed through a first bed of activated carbon granules and then transferred to a biological treatment system. Effluent from the biological system then flows through a second activated carbon bed before discharge.

After a period of use the carbon bed of the second bed is replaced by a reactivated bed. The spent second bed is substituted for the first bed which is then taken off line for

reactivation preferably followed by the addition of a make-up quantity of new activated carbon.

The apparatus treats sewage which may contain substances which might poison the biological treatment system. These poisons are adsorbed on the activated carbon beds. 24.1.79 as 006421 (12pp295).

ELSA/ D15 86442 A/48 =US 4237-003

Rapid sewage treatment under anaerobic conditions - in biological bed contg. extracellular enzyme from aerobic cultivation of Gram-positive bacteria

EL-SAYED R M 09.05.77-SW-005386

*(02.12.80) *DT2820-086 +C02f-03/04*

Liq. wastes are purified biologically by contacting them with active microorganisms in a biological bed, and degrading the organic impurities present.

The process comprises cultivating Gram-positive bacteria in an aerobic environment rich in nutrient by producing a suspension of extra-cellular enzymes and bacteria; sepg. the bacteria from the suspension by transferring into a nutrient-poor environment and allowing the bacteria to enter into a dead phase and settle; adding the sepd. suspension contg. extra-cellular enzymes to the liq. wastes; conducting the purificn. under anaerobic conditions with anaerobic microorganisms, and removing the purified liq. wastes from the bed.

The anaerobic process used only produces 0.2% of sludge and the retention time reduced to 25%. 9.5.78 as 904241 (6pp931).

LMER-★ D15 91966 C/51 ★US 4237-004

Waste water treatment for boat - by coagulation and disinfection then passing through two/stage settling tank

LE MERE IND INC 02.10.78-US-947655

(02.12.80) C02f-01/24

Waste water is filtered to remove large particles and a coagulant together with a disinfectant is added to the remainder which is then passed to a two-compartment vessel. The vessel typically comprises an inner vertical compartment surrounded by an annular outer compartment connected to the bottom section of the inner compartment.

The coagulated waste water is introduced at the top of the inner compartment and is filtered by passing through an accumulated scum. It then flows down the inner compartment and enters the outer compartment where its velocity decreases. Purified water is removed from beneath the scum layer in the outer compartment. 2.10.78 as 947655 (10pp295).

EVTE- D15 18238 B/10 =US 4237-007

Thermal regeneration of water treatment material - in thermal regenerating and cooling columns with heat exchanger circuits

EVT ENERGIE & VERFA (HAGE-) 24.08.77-DT-738120

*J01 (02.12.80) *DT2738-120 +B01d-15/02*

Water treatment appts. consisting of an operating column contg. active particulates has a regenerating column attached, an aq. liq. transferring agent and regenerated particulate between the columns.

The waste heat from the regeneration step is re-cycled to heat the aq. medium before entering the regeneration column by 2 heat exchangers. Extraction of the waste heater occurs in a cooling column between the other 2.

Ion exchange resins can be efficiently regenerated. 15.8.78 as 933800 (12pp1376).

FIPO ★ D15 91969 C/51 ★US 4237-008

Gravity flow disinfection of water - with three transverse apertured diffuser tubes in rectangular flow path

FISCHER & PORTER CO 11.01.79-US-002769

(02.12.80) C02b-01/18

Water flows by gravity through a conduit with a rectangular cross section. A disinfection solution is discharged into the water via three transverse tubes each having a series of apertures. The apertures discharge the solution as interferring jets with a Reynolds number greater than 5000 to create turbulence. The velocity of the jets is at least twice the velocity of the water stream. Pref. the disinfection soln. is chlorine dioxide.

The appts. treats domestic wastewater. The desig the diffuser tubes creates high turbulence and thus ach es disinfection after a short residence time. 11.1.79 002769 (7pp295).

MARM D15 81115 B/45 =US 4237

Chalk or lime based compsn. for desulphurisation of gas - cont (bi)sulphite ions and graham's salt or poly:phosphate, increa sedimentation rate

MARTIN MARIETTA CORP 28.04.78-US-901164 (25.09.78 945654)

*E36 J01 L02 Q42 (02.12.80) *DT2916-975 +C09k-03*

Compsn. for removing S oxides from gases comprises lime(stone) and Graham's salt or a water soluble polyn of formula $M_xP_nO(3n+1)$ (where M is a cation; $n \geq 1$; x $(n+2)/Y$; and Y is the valence of M). Pref. the wt. rat of Ca ions to Graham's salt or Ca to $P_nO(3n+1)$ is 1:0. -0.2. Pref. the compsn. also contains water.

The compsn. is useful for removing SO_x from e.g. gas resulting from burning fossil fuel. Specifically the compsn. is used in the form of a sludge having increas density, reducing the risk of water pollution and reduc the storage area for impounded sludge. 25.9.78 as 945654 (5pp924).

BADI D15 18388 B/10 =US 4237

Oil-absorbing hydrophobic polyurethane foams - prepd. lipophilic cpd. addn., have low density and low closed to open ratio

BASF AG 25.08.77-DT-738268

*A25 H03 (A97) (02.12.80) *EP-----933 C08g-18/14*

Hydrophobic polyurethane foams, which have density 4 g/l and which have 2-30% of closed cells and 98-70% o open cells are prepd. by reacting organic polyisocyana polyhydroxy cpds., catalysts and water, opt. with blo agents, lipophilic cpds., chain extenders, assistants a additives.

The starting components are reacted in such amts. the ratio of all H atoms capable of undergoing a Zerevi off reaction to the NCO gps. of the polyisocyanate is 1. 10:1, (the atoms being bonded to polyhydroxy cpd. and water and to the lipophilic cpd. and chain extender is The ratio of those atoms which are bonded to the poly- hydroxy cpd. and to the lipophilic cpd. and chain exten if used is 0.7-1.3:1.

The foams are suitable for the absorption of oil and hydrophobic solvents, which may contain halogen, fro water. 30.4.79 as 034541 (+9.8.78-US-932355) (7pp9

USDA ★ D15 92075 C/51 ★US 423

Water insoluble 3-halo-2-hydroxypropyl ether of crosslinked st and reaction products with nitrogenous cpds. used as ani cationic or chelating complexing agent

US SEC OF AGRICULTURE 24.04.79-US-032850

A11 J01 M11 (A97) (02.12.80) C08b-31 C08b-33

Water insoluble, 3-halo-2-hydroxypropyl ether of unge tinised crosslinked starch having degree of substitutio 0.1, pref. $\geq$ 0.7 is claimed and is prepd. by reacting granular, crosslinked starch of moisture content 5-18 (based on its dry wt.) with an epihalohydrin in the pre of a strong acid catalyst.

Water insoluble reaction prod. of an N-contg. cpd. starch ether (A) (where the reaction is carried out at t site of halogenation), is also claimed.

The N-contg. starch ethers are used as anionic, ca ionic or chelating complexing agents having degrees o substn. higher than in prior art. The crosslinked cati starches are used to remove chromate, molybdate and permanganate anions from aq. soln., crosslinked anio starches are used in strong acid ion exchange resins a the chelating starches are used to remove Cu, Cd, Hg Fe and other heavy metal ions from aq. solns., i.e. i purifying electroplating rinse waters. 24.4.79 as 032 (7pp966).

...- ★ D15 92108 C/51 ★US 4237-538
...bed water softener - with microprocessor controlling valves ...ding regeneration cycle at preset times
...ERMO SA 24.11.78-US-963261
...04 T01 (T06) (02.12.80) B01d-15/04 C02f-01/42 G06f-15/46
...er is softened by passing through an ion-exchange ...n bed. The resin bed is regenerated by terminating ...water flow and passing a brine solution through the bed. ...e is washed from the resin before returning the ...aratus to operational use. The valves which regulate ...liq. flows are electrically activated and are driven ...n a microprocessor.
...The microprocessor is programmed to initiate a re-...eration cycle at predetermined intervals or alternative-...t can be programmed to regenerate the bed when it has ...cessed a specified volume of water.
...The apparatus softens water. The programming can ...adjusted to tailor the apparatus to match the particular ...rational environment in which it is employed. 24.11.78 ...963261 (13pp295).

...CY ★ D15 C/51 ★ZA 7905-533
...culating suspended solids contg. polyvalent cations - using ...ymeric anionic flocculants contg. sulphonate ions
...AMERICAN CYANAMID CO 15.02.79-US-012274
...A97 J01 (18.09.80) B01d C02b
...dispersions of solids contg. multivalent cations are ...re readily flocculated with polymeric anionic floccu-...ts contg. sulphonate ions than similar flocculants contg. only carboxylate ions. 17.10.79. as 005533 (20pp-)

QPPP ★ D15 C/51 ★ZA 7905-843
Peeling shells of boiled eggs - by introducing eggs into cylinder through which water is passed, the cylinder performing circular motion about horizontal axis
Q.P. CORP 31.10.79-ZA-005843
(28.08.80) A23j
Peeling of the shells of boiled eggs is realised continuously, promptly and simply by introducing the boiled eggs into a cylinder through which water is flowing, the cylinder performing circular movement about a substantially horizontal axis with the magnitude of the circular movement increasing gradually from an initial portion toward a terminal end portion. The boiled eggs are firstly made to collide with the inner surface of the cylinder by small circular movement of the cylinder, and rendered more elastic with the eggshells of fine fragments, to the degree that the shell membrane remains unbroken. Next, the shell membrane is broken by applying a whirling water stream and a centrifugal force generated by large circular motion. The boiled egg contents are then separated from the eggshells so smoothly as to be slipped out of their shells. 31.10.79. as 005843(18pp)

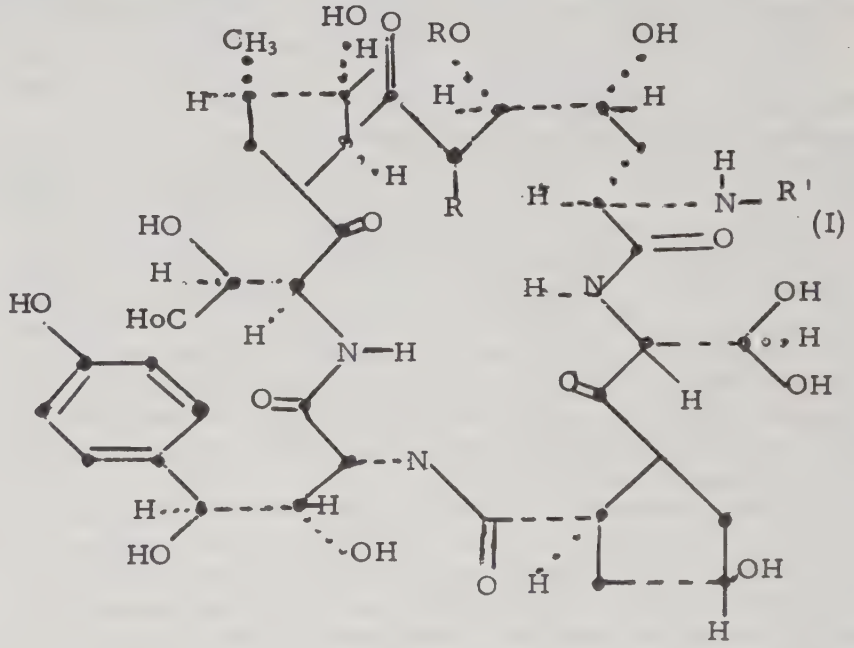
See Also

D16 J8 0046709 D16 US 4236349 D22 DT 2921716
D22 DT 3020235 D22 J5 5141142 D22 US 4237019
D25 DT 2921945

D16: FERMENTATION INDUSTRY

...L ★ D16 90140 C/51 ★BE-883-592
...tibiotic A-42355 obtd. by cultivation of aspergillus nidulans - var. ...seus (NRRL 11440), comprising factors A,B,D and H of antibiotic A-...912 factor A is echinocandin B
...ELI LILLY & CO 03.03.80-US-126078 (08.06.79-US-046744)
...B02 C02 (02.12.80) C12n C12p
...oduction of an antibiotic mixture, A-42355, containing ...ctors A, B, D and H of antibiotic A-30912 and for the ...paration of the mixture to give the individual factors ...mprises (a) cultivation of Aspergillus sidulans var. ...seus NRRL 11440 in a medium containing assumilable ...acides, nitrogen and mineral salts by immersed aerobic ...rmentation until a substantial concentration of antibiotic ...present; (b) sepn. of the antibiotic mixt. A-42355 from ...e culture medium and (c) opt. sepg. the factors A, B, D ...d H of A-30912 from the mixt. A-42355.
...The factor H of antibiotic A-30912 is a new antibiotic ...iving antifungal activity see BE-883593 2.6.80 as 883592 ...pp395)

...★ D16 90141 C/51 ★BE-883-593
...ctor H of antifungal antibiotic A-30912 and its homologues - ...pd. by treatmen' of Enchinocandin B or factor A with alkanol ...der acid conditions
...ELI LILLY & CO 01.02.80-US-117739 (08.06.79-US-046875)
...B02 C02 (02.12.80) A01n C07d C07g
...ctor H of antibiotic A-30912 (or A-30912H and derivs ...e of formula (I)



In (I) R1 linoleoyl or stearoyl and R = 1-6 C alkyl with the condition that when R = methyl then R_1 linoleoyl.

Used as antifurgal antibiotics. Factor H of antibiotic A-30912 (i.e. (I) where R_1 linoleryl and R methyl) has MIC — /disc plunged discs for candida albicans (1.25) and Trichophyton mentagrophytes (0-078). On gelose MIC for plastomyces dermatilidis and Hestoplasma capsulatum is 100 µg/ml. 2.6.8. as 88359. (40pp395).

MISL/ ★ D16 C/51 ★CS 7908-001
Lactate dehydrogenase isolation and purification
MISLOVICOVA D 21.11.79-CS-008001
B04 (29.08.80) A61k-37/54 C08b-15

AUTO- D16 76209 X/41 =DS 2612-568
Simultaneous diln and stirring of liqs - in a test tube, esp for automatic chemical analysis
AUTO-CHEM INSTRUMEN 27.03.75-SW-003588
*J04 (11.12.80) *DT2612-568 B01j-04*
A pipette for dispensing a liq. into another liq. in a test tube is held on a mount which also supports an electromagnet. The armature for the latter is stepped so that it

which reaches as far as the test tube contents is attached with the other end to the centre of the armature. A heavy weight just below its attachment is flanked by leaf springs and limits the amplitude of the stirrer which is a max. at the bottom in the test tube below the pipette.

This saves having to transfer the test tube to a stirring station and saves time. 24.3.76 as 612568 (4pp39).

TOXN ★ D16 90461 C/51 ★DT 3020-646

Microbial glycero:kinase enzyme - isolated from e.g. Streptomyces canus A2408 FERM P 4977, useful for diagnostic purposes (NL 9.12.80

TOYO JOZO KK 06.06.79-JA-071459

B04 (11.12.80) C12n-09/12

New glycerokinase has the following properties: (1) catalyses at least the reaction between glycerol and ATP to form ADP. (2) mol.wt. 72,000 ± 7,200; (3) isoelectric point 4.5; (4) Km values: glycerol 4.8×10^{-5} Mg dihydroxyacetone 6.6×10^{-4}M, D-glyceraldehyde 3.5×10^{-4} M, ATP 2×10^{-4} M; (5) specificities for nucleotides ATP> CTP> ITP >> GTP, UTP; (6) optical pH 9-10; (7) stable at pH 5.5-10; (8) stimulated by Mg^{++}, inhibited by Ca^{++} and Mn^{++}; (9) stable up to 45°C.

The glycerokinase can be used for diagnostic purposes. For example, it can be used in the analysis of triglyceride and glycerol by reacting triglyceride with lipoprotein lipase, incubating the reaction mixture with glycerokinase and ATP to form glycero-3-phosphate, incubating this with glycero-3-phosphate oxidase, and measuring the amount of oxygen consumed or H_2O_2 formed. 30.5.80. as 020646 (24pp280)

KURE ★ D16 90472 C/51 ★DT 3020-851

Adenosine 5'-tri-phosphate microbiological prodn. - by fermentation of an ATP-producing, methanol assimilating bacterium in a medium contg. methanol and inorganic phosphate

KUREHA KAGAKU KOGYO 04.06.79-JA-069800

B02 (11.12.80) C12p-19/32

New process is claimed for prodn. of adenosine 5'-triphosphate (ATP) by cultivation of an ATP-producing bacterium in a cultivation medium to produce and accumulate ATP in the medium, and recovery of the product. The ATP-producing bacterium is one which is capable of assimilating methanol and which belongs to the genus Methylomonas, Pseudomonas, Methanomonas, Protaminobacter, Acrhomobacter, Corynebacterium, Hyphomicrobium, Microcyclus or Bacillus. The cultivation medium contains a substrate methanol or a chemical substance showing the same metabolic path as methanol, as well as an inorganic phosphate in an amount of 4-35 g/l (calculated as PO_4).

ATP is used for medicinal purposes and as a biochemical reagent. It is useful in the prodn. of biochemical substances and coenzymes such as FAD and NAD. The process uses inexpensive methanol and inorganic phosphate as substrates, and gives high concns. of ATP in the medium. 2.6.80. as 020851 (15pp280)

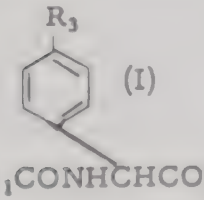
FARB D16 63329 B/35 =EP G003-786

Phenyl-glycine derivs. enzymatic optical resolution - by stereoselective cleavage of N-acylamide or ester derivs. with carrier-bound enzymes

BAYER AG 21.02.78-DT-807286

*A97 B05 (A14) (10.12.80) *DT2807-286 C07b-19/02 C07c-101/06*

Process for the stereospecific resolution of DL-phenylglycine esters comprises selective proteolysis of N-acyl-DL-phenylglycine esters pref. of formula (I) using proteolytic enzymes bonded to inert carrier resins; the resulting mixt. of N-acyl-D-phenylglycine ester and N-acyl-L-phenylglycine is separated, opt. followed by acid hydroylsis of the ester and/or acyl groups. In (I), R_1 is H or an opt. substd. aliphatic or araliphatic group; R_2 is alkoxy; and R_3 is H, OH, alkoxy, aralkoxy, aryloxy, cycloalkoxy or acyloxy. The process is performed at 20-40° and pH 6-8.



Prefd. enzymes are serine or sulphydryl proteaes subtilisin, α-chymotrypsin, papain, ficin and bromel Prefd. carriers are copolymers of methacrylates (es tetraethyleneglycol dimethacrylate) methacrylic acid maleic anhydride, opt. crosslinked with glutardialdeh 12.2.79 as 100391 (10pp47) (G).

INVE- D16 38236 C/21 =EP --1

composting container with outlet opening - to which tr material is delivered by reversal of stirrer rotational direction

INVENTOR INVEST AB 01.02.79-SW-000891 (06.11.78 011469)

*P28 (10.12.80) *WP8000-961 A47k-11 C05f-03/06*

D/S: E(DT, FR, GB)

5.11.79 as 901550

FUJI D16 27239 C/15 =EP --1

Immobilised enzyme column, esp. for clinical analysis - with e transported and assembled holder assembly

FUJISAWA PHARM KK 08.06.79-JA-U78767 (06.09.7 110102)

*B04 J04 S03 (S05) (10.12.80) *WP8000-574 C12n-11 C1 G01n-33/50*

D/S: E(CH, DT, FR, GB, NL, SW)

4.9.79 as 901094

KLOH D16 88549 C/50 =EP --1

Biological sewage treatment optimisation - by recycling centrifuging part of digested sludge

KLOCKNER-HUMBOLDT-DEUTZ 30.05.79-DT-921918

*(10.12.80) *DT2921-918 C02f-03/28 + C02f-01/38*

D/S: E(CH, DT, FL, FR, GB, IT, OE, SW).

A system for optimising the metabolic activity of mic organisms in the substrate of a biological reaction, s ially during the digestion of the sludge in a biological sewage treatment, is based on branching off a side st am of the fermented substrate. This is recirculated, mixed with fresh substrate. Directly before mixing v fresh substrate, the side stream is dewatered by usin artificial gravitational field (pref. by centrifuging).

This stabilises the metabolism in the acid digestio stage and creates optimum growth conditions for met ane-bacteria. The solids content in each digestion st is raised and the pH values are optimised.

30.4.80. as 102330 (24pp39).

(G)ISR:- DT1908596; GB2007205.

MILE ★ D16 90558 C/51 ★EP --1

Prepn. of apo:glucose oxidase from glucose oxidase and gly with chromatographic sepn. for use in specific binding assays

MILES LABORATORIES INC 04.06.79-US-045191

B04 S03 (10.12.80) C12n-09/04

D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW)

Prepn. of apoglucose oxidase (AC) comprises incubat an aq.soln. of glucose oxidase contg. 20-40% glycerol having pH < 2. The resulting dissociated flavin aden dinucleotide (FAD) and AO in the soln. are sepd. by column chromatography in aq. medium contg. 20-40% cerol and having pH < 2. Effluent contg. AO is colle and adjusted to pH 6-7.5.

AO prod. is obtd. in good and reproducible yields, it has less residual enzyme activities than prior pro and usually <0.005%, so that it is esp. suitable as a reagent in specific binding assays in which FAD is u label in the determn. of ligands, esp. antigens and ha 22.5.80 as 102849 (19pp1248)

(E) ISR:- 8 Journal References

MITU ★ D16 90561 C/51 ★EP --1

Assaying fatty acids in presence of albumin - using water-s salt of 10-18C di:basic fatty acid or benzene sulphonate to r interference from albumin

MITSUBISHI CHEM IND KK 25.09.79-JA-122961 (25.05. 064651)

B04 (10.12.80) C12q-01

D/S: E(DT, FR, GB, IT)

tipped periodically sideways when the electromagnet is nergised by an a.c. source. A long central stirrer rod atty acids are assayed, in a system which also contains lbumin, using acyl-CoA synthetase. The improvement omprises performing the assay in the presence of a ater-soluble salt (I) of a 10-18C dibasic fatty acid or a enzene sulphonate (II) opt. having one or more 1-5C ide chains.

The method can be used e.g. for determining free fatty cids in human serum samples. The salt cleaves or issociates the linkage of the fatty acid to the albumin, hus giving an increased rate of reaction and reducing nterference from albumin.

3.5.80 as 102884 (24pp914)

E) ISR: US4071413; 2 Journal references.

AJIN ★ D16 90563 C/51 ★EP--19-877

tabilising properties of Escherichia microorganism contg. plasmid - y inserting in plasmid chromosome DNA fragment controlling ndependence of streptomycin

AJINOMOTO KK 23.05.79-JA-063467

B04 (10.12.80) C12n-15

D/S: E(CH, DT, FL, FR, GB)

A plasmid obtd. from a microorganism of the genus Escherichia is inserted with a chromosomal DNA fragment controlling the independence of streptomycin, and the obtd. recombinant DNA is incorporated into a mutant of the genus Escherichia which originally is dependent on streptomycin. Thus, a streptomycin-independent mutant of the Escherichia microorganism is obtd.

The process is esp. applicable to stabilising the characteristics of a threonine-producing Escherichia microorganism.

3.5.80 as 102888 (19pp914)

E) ISR: 2 Journal references.

NDK D16 88538 C/50 =EP--19-898

oil improver prodn. from pelletised refuse and sewage sludge - by composting the pellets with intermediate remoistening

IND WERKE KARLSRUHE AG 29.05.79-DT-921709

*(10.12.80) *DT2921-709 +C05f-07 C05f-09*

D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW)

Prodn. of storage-stable biologically active soil improvers is carried out by pressing a mixt. of partially dewatered sewage sludge (water content 50-90%) and comminuted refuse to reduce its vol. to ca. 1/3 without expelling water, and drying the resulting pellets by exposure to air in compost heaps.

After composting for 3-5 days, when the heap is at 60-70°C and has a moisture content of < 55%, the heap is remoistened (pref. with a fine spray of water) for 7-14 days so that all readily degradable materials (esp. oxidable organic materials) are completely degraded within 5 weeks.

Remoistening accelerates the composting process (cf. DT1145646).

3.5.80 as 102936 (14pp367)

E) ISR: CH-420224; DS1145046; BE-695144; FR-803116; DT2628772.

KE ★ D16 90580 C/51 ★EP--19-934

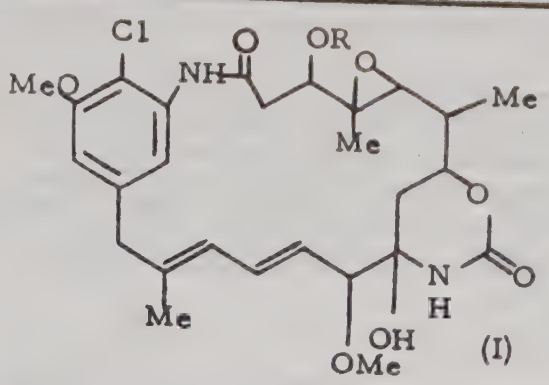
ntibiotic C-15003 PND - having antifungal, antiprotozoal and ntitumour activity, and produced by culturing Nocardia species

TAKEDA YAKUHIN KOGY 05.06.79-JA-070771

B02 C02 (10.12.80) C07d-498/18 C12p-17/18

S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW).

Prodn. of Antibiotic C-15003 PND of formula (I) comises cultivating a (I)-producing species of Nocardia in a edium contg. assimilable carbon sources and digestible trogen sources, followed by recovering (I) from the edium.



(R is -H, -COMe, -COEt, -COCHMe$_2$ or -COCH$_2$CHMe$_2$).

(B) (I) where R is as defined but other than H are new.

(I) where R is H is an intermediate for the new cpds. (I) which are antifungal, antiprotozoal and antitumour agents.

3.6.80 as 103090 (41pp914).

(E)ISR: US3896111; DT2849696; DT2849666; FR2385714; FR2385798; US4137230.

PHIP ★ D16 90581 C/51 ★EP--19-937

Prepn. of alcohol oxidase solns. - from methanol-using Pichia-type microorganisms by homogenisation, and removal of solids

PHILLIPS PETROLEUM CO 05.06.79-US-045715

B04 (10.12.80) C12n-09/04 C12q-01/26

D/S: E(DT, FR, GB, IT, SW)

In the prepn. of alcohol oxidase (I), an aq. fluid contg. a suspension of cells of an MeOH-utilising Pichia-type organism is homogenized, and the suspended solids are removed to give a soln. contg. soluble (I).

Simple, inexpensive method readily affords pure (I) in soln. or in crystalline form. (I) is useful for the measurement of alcohol levels in biological fluids (e.g. EtOH in blood or short-chain alcohols in fermenter broths) without interference by acids or aldehydes (other than HCHO).

3.6.80 as 103097 (29pp478)

(E) ISR: GB1507810; 9 Journal references.

TERU- ★ D16 90583 C/51 ★EP--19-940

Microorganism culturing tube - with stopper moving axially under gas pressure to expose vent aperture

TERUMO CORP 01.04.80-JA-042163 (04.06.79-JA-069713)

(10.12.80) B01I-03/14 C12m-01/24

D/S: E(BE, DT, FR, GB, IT, NL, SW).

A microorganism culturing tube includes a culture medium which is hermetically sealed within the tube by a stopper after inoculation. The stopper can move axially in response to positive pressure inside the tube and after a predetermined movement the gas is vented through an aperture which becomes uncovered. The stopper has an annular groove which receives a bead surrounding the mouth of the culture tube and serving to hold the stopper in its sealing position. An additional groove is provided in the stopper beyond the vent aperture and prevents the stopper from being blown off from the tube if excessively high pressures develop.

The tube may be used for the anaerobic culture of microorganisms and vents the tube if a high pressure is developed. The tube can also be used for aerobic culturing by partially inserting the stopper so that the aperture remains exposed.

4.6.80 as 103124 (25pp295).

(E)ISR: US3033408; US3898046; FR2029242; US3904482; WP8001047.

BREW ★ D16 90643 C/51 ★EP--20-086

Hop extracts contg. hop oil, alpha-acids or beta-acids - prepd. by extn. of hops with pressurised liq. carbon di:oxide

BREWING PATENTS LTD 24.05.79-GB-018075

(10.12.80) C12c-09/02

D/S: E(BE, CH, DT, FL, FR, GB, NL, OE).

Hop extracts contg. a high proportion of hop oil (I), α-acids (II), and/or β-acids (III) are prepd. by (a) passing fluid carbon dioxide under superatmos. pressure through a packed column of hops to effect the desired extrn.; (b) collecting the separate fractions of the extract at inter-

vals; and (c) selecting the fraction having a high content of the desired (I)-(III).

A mixt. contg. a high proportion of the essential (I) is obtd. in a single-stage process while still leaving the major proportion of (II) available for further extn. using the same technique. In the process (I), (III) then (II) are sequentially removed from the column in that order. The extracts are used for imparting a bitter flavour to beer.

21.5.80 as 301687 (25pp478).
(E) ISR: FR2388582.

BREW ★ D16 90644 C/51 ★EP --20-087
Purification of iso-alpha-acids - in aq. solns. contg. beta-acids by pH adjustment at controlled concns., for direct addn. to bright beer
BREWING PATENTS LTD 24.05.79-GB-018074
(10.12.80) C12c-09/02
D/S: E(BE, CH, DT, FL, FR, GB, NL, OE).

Aq. solns. contg. iso-α-acids (I) and β-acids (II) at pH >9 are treated as follows: (a) the soln. is adjusted (if necessary) to (I) concn. 0.5-10 (pref. 0.5-5)% w/w; (b) the pH is adjusted to 7-10; (c) the pptd. (II) are readily sepd. by filtration to give a clear soln. of (I). The (I) concn. and pH depend on the salt : (I) mol. ratio in the soln.

(I) is cheaply and reliably sepd. from (II) without using large vols. of reagents. (I) (free from (II)) are the principal bittering components in beer. The recovered (I) soln. is suitable for direct addn. to bright beer without haze formation.

21.5.80. as 301688 (21pp478).
(E) ISR: FR1507100; FR2030133.

MERI ★ D16 90650 C/51 ★EP --20-097
Prepn. of low-calcium smooth-flow xanthan gum - by culture of xanthomonas campestris on medium contg. high phosphate but low calcium levels
MERCK & CO INC 31.05.79-US-044144
A11 (D13 D21) (10.12.80) C12p-19/06
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

Low-Ca, smooth-flow xanthan gum (I) is prepd. by the whole culture fermentation of Xanthomonas campestris in an aq. medium free of Ca ions but contg. 0.7-1.0% phosphate (II).

Fermentation of X. campestris in the absence of Ca ions and without high shear gives (I) which has smooth flow props. The prod. is esp. useful in pourable and spoonable salad dressings. In addn., solubility of reconstituted dry mixes (gravies, fruit beverages, etc.) is markedly improved; and texture and flow props. in high sugar/solids systems (toothpaste, shampoo etc.) are markedly improved. It may also be used in a well-drilling mud.

22.5.80 as 301702 (46pp478).
(E) ISR: EP---5030; FR2360665; US4071406; CS-161467; FR2331614; 1 Journal Reference.

REGC ★ D16 90673 C/51 ★EP --20-147
DNA transfer vector - with deoxy-nucleotide sequence coding for human pre-growth hormone
UNIV OF CALIFORNIA 01.06.79-US-044647
B04 (10.12.80) C07g C12n-15 C12p-21/02 C12r
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

(A) DNA transfer vector comprising a deoxynucleotide sequence coding for human pre-growth hormone (HPH) is new.

(B) Microorganisms transformed with the vector are new.

(C) Plasmids p BR 322/HGH 800 and p trp ED50-HGH are new.

(D) Microorganisms transformed by these two plasmids are new.

(E) Chimeric protein comprising the amino acid sequence of (HPH) as its C-terminal sequence and a portion of a procaryotic protein as its N-terminal sequence is new.

(F) Cloning a deoxynucleotide sequence coding for HGH from pituitary gland tissue of an individual human is effected by first extracting mRNA coding for HPH from the pituitary gland, and then sepg. the mRNA in pure for and free from protein, DNA and other RNA. A single-stranded cDNA having a nucleotide sequence complemen stranded cDNA having a nucleotide sequence complementary to that of the mRNA is then synthesised in procedur involving incubation with an enzyme, extn. to remove protein, alcohol pptn. and alkaline hydrolysis, all in the same reaction tube in absence of added carrier DNA. T cDNA is purified by chromatography, fractions contg. it being located by a radioassay which does not consume reaction prod.

Next, double-stranded cDNA is synthesised having on strand with a nucleotide sequence corresp. to that of the mRNA, using similar reaction conditions and the same purification procedure as described above.

The double-stranded cDNA is then treated with enzyn and purified using similar reaction conditions and the same purification procedure as described above. This provides end gps. suitable for inserting the cDNA into a DNA transfer vector to give a recombinant transfer vector.

Microorganisms are then transformed with the vecto A strain derived from a single transformed cell, transformed by a vector contg. cDNA coding for HPH, is the selected.

29.5.80. as 301785 (38pp1248).
(E) ISR: LU--79714; US-897710; DT2825595; EP---1929; GB2031434; 5 Journal References.

DIFF- ★ D16 90698 C/51 ★EP --20-
Cage for bottles of wine being prepd. by Champagne method - sides with internal bottle guide rods to facilitate loading etc.
CENT DIFFUS CHAMPEN 12.07.79-FR-018104 (16.05.79-012443)
(10.12.80) C12g-01/06 C12l-11
D/S: E(CH, DT, FL, IT, LU, OE)

A cage is of parallelepiped form with an open end oppos a base which has external support feet. One side (3) al has external feet ($3f_1$). The cage is set on its side feet and loaded with several superimposed layers of horizontal bottles (B), necks towards cage base. When the cag is repositioned to stand on its base feet, the bottles become vertical, necks down.

The sides (2B,3) are fitted internally with guide bars (2d,3d) at right angles to the base. The rails guide bottles during loading.

The storage cage is for bottles of wine which are mechanically handled in order to carry out treatment o the wine by the champagne method.

14.5.80 as 400676 (32pp448)
(F) ISR: FR2041582; FR2300807; FR-483351; FR2034 FR1172368.

REGC ★ D16 90704 C/51 ★EP --20-
DNA transfer vector comprising genome of non passageable vir esp. of hepatitis B virus for transforming microorganism
UNIV OF CALIFORNIA 26.12.79-US-107267 (24.05.79-041909)
B04 (10.12.80) A61k-39/29 C12n-15 C12p-21/02
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW

(A) DNA transfer vector comprises at least a portion o the genome of a non-passageable virus (NP-virus).

(B) Process for maintaining, replicating and expres ing at least part of the genome of a NP-virus comprise first isolating the genetic material comprising at least part of the genome of the NP-virus, or a cDNA transcr of it, then recombining the genetic material with a DNA transfer vector to form a recombinant vector and trans forming a host cell with this vector. Next, a suitable host cell strain is selected and grown under conditions favouring its proliferation.

(C) Vaccine against an NP-virus comprises a steril diluent and an antigen comprising an immunologically active protein constituent of the virus, expressed by a micro-organism which has been transformed by a DNA transfer vector comprising a nucleotide sequence enco ing the protein, the micro-organism being capable of expressing the sequence.

(D) Prepn. of a vaccine against an NP-virus comprises
nsforming a micro-organism with a DNA transfer
tor comprising a nucleotide sequence encoding a pro-
of the virus. The sequence is inserted in a region of
vector controlled by an expressable operon, in read-
frame phase and orientation such that translation
ression of the operon results in translation expression
he sequence. The micro-organism is then grown
er conditions which allow expression of the operon to
ke a protein comprising the amino acid sequence of the
tein of the virus. The protein is purified and mixed
h a sterile diluent.
5.80 as 400722 (80pp1248)
ISR:

P ★ D16 90718 C/51 ★EP--20-278
vitro diagnosis of cystic fibrosis or mucoviscidosis - utilising
rmal stability of enzymes e.g. alpha mannosidase or acid
sphatase from test subject
INST PASTEUR 01.06.79-FR-014234
B04 S03 (10.12.80) C12q-01/34 G01n-33/50
: E(BE, CH, DT, FL, GB, IT, LU, NL).

itro diagnosis of cystic fibrosis (CF or mucoviscidos-
or an inheritable genetic defect characteristic of
tic fibrosis, is effected using a biological medium obtd
ectly from the individual to be tested or a suspension
culture of cells previously removed from the individu-
by determining the range of conditions (e.g. temp.) in
ch at least one of the enzymes, esp. hydrolases of the
e which are affected by the genetic defect(s) of "CF-
erozygote" or "CF-homozygote" individuals, remain
ble.
When it is from a normal individual it remains stable
fact it only undergoes a slow kinetic inactivation) in
ntrast to an accelerated inactivation (in fact a total de-
ivation) when it is from a "CF-heterozygote" or "CF-
mozygote" individual. The test is repeated (qualitative-
or quantitatively) under the same conditions on each
logical sample to be tested.
The accelerated inactivation kinetics or more rapid
nges which may be seen for the same enzyme may be
related with "CF-homozygote" or "CF-heterozygote"
racter of the corresp. cells.
..80. as 400779 (26pp395).
ISR: 6 Journal References.

HD ★ D16 90721 C/51 ★EP--20-290
tein prepn. by selective enzymatic cleavage - of N-terminal
tein sequence from fusion protein
SCHERING AG 27.03.80-DT-012170 (31.05.79-DT-922496)
B04 (10.12.80) C12n-09/58 C12p-21/06
rmediate priority: 27.3.80-DT-012170.
: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

Prepn. of proteins (I) comprises enzymatically clea-
g the C-terminal from a fusion protein (II) with the
erminal tetrapeptide sequence of formula (III)

Pro — Xyz — Gly — Pro (III)

z is any aminoacid).
Pref. the Xyz-Gly bond of (III) is selectively cleaved
n a collagenase, the glycine is removed with an
inoacylproline-aminopeptidase (IV) and the proline
emoved with a proline aminopeptidase. The glycine
proline removal may be effected simultaneously.
ernatively, the Gly-Pro gp. may be cleaved with a
t-proline dipeptidyl-aminopeptidase (V).
The process can be used to prepare a desired synth-
protein (e.g. proinsulin, insulin A- or B- chain,
TH, STH, human growth hormone, bovine prolactin)
m a fusion protein obtd. from a genetically modified
roorganism. The enzymatic cleavage processes
se less cleavage than the BrCN method.
30.5.80 as 730036 (19pp941).
ISR: EP---1930; DT1442147; 8 Journal References.

PEPI- ★ D16 90761 C/51 ★FR 2450-872
Removing tartar from wine by low temp. crystallisation - optimised by recycling heavy crystals to mix with fresh crystals
PEPIN FILSAIN G ETA 05.03.79-FR-005590
(07.11.80) C12h-01/06 C12l-11

Process and an installation for removing tartar, partic. bitartrates of potassium, from wine. The process is of the type in which the wine is passed through an ultrarefrig-erant evaporative cooler to crystallise the tartar which is then allowed to settle out in a thermally insulated holding vessel.

The wine is introduced to the holding vessel via an injector which sucks in and recirculates some of the liq. already in the vessel. The injector pref. delivers tangentially to the vertical cylindrical wall of the holding vessel. Liq. with heavy crystals is pref. pumped from the lower end of the vessel to be recycled back into the vessel.
5.3.79 as 005590 (5pp448)

BRPE D16 44460 A/25 =GB 1581-643
Prepn. of protein from hydrocarbon cpds. by yeast fermentation - comprises regulating oxygen level and dilution to increase productivity
BRITISH PETROLEUM LTD (PETF) 23.09.76-GB-039501
*H04 (D13) (17.12.80) *FR2365-631 +C12n-01/28 C12r-01/74*

Straight-chain hydrocarbon-utilising yeast is produced as a continuous cultivation in a broth comprising an aq. nutrient medium in the presence of a gas contg. free O_2 and a straight-chain hydrocarbon.

A dissolved O_2 content is maintained in the broth at 20-90% of saturation, w.r.t. air, and a dilution rate maintained at 0.20-0.40 h^{-1}. Pref. the dissolved O_2 content is maintained by adjusting the over pressure, or the amt. of air applied to the broth in response to the measurement of the dissolved O_2 content. The O_2-contg. gas is air, used at a flow rate of 50-300 vols. per vol. hr.

The yeast is esp. cultivated for use as a feedstuff, and is the species Candida lipolytica or tropicalis. 12.9.77 (5pp931).

SMIK- D16 13983 A/08 =GB 1581-776
Neurotoxin prepd. from pathogenic Escherichia coli - useful for making vaccines against pig enterotoxaemia
SMITH KLINE RIT (RECA) 18.08.76-US-715746
*A88 B04 C03 (17.12.80) *BE-857-794 A61k-39/02*

E coli neurotoxin having average mol. wt. of 100000 and obtd. from the supernatant of disrupted cells of a culture of an E coli sero type which causes oedaema disease in piglets is described.

The neurotoxin is prepd. from the supernatant by pptg. therefrom crude neurotoxin by (a) salting out with ammonium sulphate, (b) pouring the wet ppte. into cellulose acetate bags, (c) sterilising, (d) dissolving the crude extract in aq. buffer at pH 8 supplemented with 0.15M NaCl and with a surfactant, (e) applying the soln. to chromatography column contg. crosslinked dextren gel, (f) effecting elution with the same aq. buffer at pH 8, and concentrating by ultrafiltration the fraction showing an average mol. wt. of 100000.

The prod. is useful as a vaccine against oedaema disease in piglets. 10.8.77 as 033499 (6pp964).

MOVI= ★ D16 90796 C/51 ★GB 2048-669
Living virus culture vaccine against canine distemper - comprising attenuated strain epm. 10-76 obtd. from mink having distemper
MOSC VIRUS PREPNS (FURA=) 18.05.79-GB-017448
B04 C03 (17.12.80) A61k-39/17

Living virus culture vaccine against Canine distemper comprises an attenuated strain EPM No.10-76 obtd. from the wild virus. It is isolated from a mink having distemper by multiple passage of the virus on (1) dog kidney cell culture, (2) continuous cell culture of the kidneys of the human embryo Rh and (3) mixed culture of dog kidney cells and Japanese quail embryo cells, adapted to the Japanese quail embryo cell culture and grown on this cell culture.

The vaccine is harmless, it does not produce toxic effects on admin., and it is obtd. economically. The vacc-

ine has high antigenic activity, it produces effective and persistent immunity in treated animals and vaccination in the epizootic foci of canine distemper rapidly eradicates infection. The vaccine may be given parenterally or in aerosol form, and since it is highly active, the amts. required for 1-500 doses can easily be filled into vials. 18.5.79 as 017448 (6pp1248).

NITY ★ D16 90822 C/51 ★GB 2048-877
Continuous prodn. of acrylamide or methacrylamide - by microbiological hydrolysis of acrylonitrile or methacrylonitrile
NITTETSU CHEM IND KK 02.05.79-JA-053380
A41 E16 (17.12.80) C07c-102/08 C07c-103/13 C12p-13/02

Continuous prodn. of (meth)acrylamide (I) is carried out by contacting (meth)acrylonitrile (II) with an immobilised (II)-hydrolysing microorganism (or an enzyme extracted therefrom) in ⩾1 reactor contg. an aq. medium at pH 6-10, and recycling part of the effluent to dilute the reaction mixt.

Suitable microorganisms are Bacillus, Bacteridium, Micrococcus, Brevibacterium, Corynebacterium and Nocardia spp., esp. Corynebacterium strains N-771 and N-774 (FERM-P 4445 and 4446) and Nocardia strain N-775 (FERM-P 4447).

The microorganism or enzyme is pref. immobilised with a polyacrylamide-based gel at ⩽15°C. Hydrolysis of (II) can be effected in fixed- or fluidised-bed reactors at ⩽30(pref. ⩽15)°C with a LHSV of 0.1-20 (esp. 0.3-5). The pH is pref. 7-9 and the dilution ratio is 2-100. In the case of acrylamide, the process is pref. operated so that the acrylamide concn. in the reaction mixt. is 5-25 wt.%. Recycling the effluent reduces the deactivation rate of the microorganisms or enzymes, allowing concd. solns. of (I) to be obtd. (cf. US 4001081 and JA 129190/79). 29.4.80 as 014147 (7pp367).

KONN ★ D16 90824 C/51 ★GB 2048-894
Plasmid conferring resistance to Streptomycin and Neomycin - useful as cloning vehicle, for gene inactivation in host to leave marker
GIST-BROCADES NV 11.05.79-GB-016377
B04 (17.12.80) C12n-15

Plasmid conferring resistance to Streptomycin(Sm^R) and neomycin (Neo^R) on its host or, after having taken up a foreign DNA fragment at one of its restriction sites with loss of its Sm^R or Neo^R phenotype, still capable of replicating and expressing genetic information in its host, is new. Pref. the host is a Bacillus spp.

Gene inactivation is possible in a host, e.g. Bacillus spp., to leave a second selectable marker. The plasmid permits insertion, replication, expression and amplification of DNA fragments from a wide variety of sources in the host, so that synthetic output of the selected host cells can be controlled. 11.5.79 as 016377 (10pp1248).

GRIT- ★ D16 90856 C/51 ★GB 2049-199
Probe for sensing bacterial activity - formed by mask producing conductors on insulating substrate
GR INT ELTRN LTD 28.04.80-GB-013989 (26.04.79-GB-014595)
L03 S03 (17.12.80) G01n-27/07

Electrode for sensing bacterial activity comprises conductive material laid down in a predetermined pattern on a non-metallic surface using a mask. Pref. the conductive material is a noble metal. Pref. an electrically insulating layer is laid over parts of the conductive material so as to expose only prescribed parts of the pattern. This layer may be a crystallisable glass dielectric consisting of a screen printed ink layer fired in a furnace.

Device can be produced reliably to a high accuracy and may be readily fitted to a sample container. 28.4.80 as 013989 (7pp295).

ELEL- ★ D16 C/51 ★HU T019-028
Prepn. of endo-polygalacturonase enzymes - useful in the prodn. of vegetable or fruit juices or purees
KOZPONTI ELELMISZER (PHYL-) 03.01.79-HU-KO2967
(D13) (28.11.80) A23l-01/09 C12d-03/04

RODL/ ★ D16 C/51 ★HU T01
Rapid determination of Salmonella in biological media - e foodstuffs
RODLER M 29.10.77-HU-RO0947
(D13) (28.11.80) C12k-01/04

ENIN- ★ D16 90861 C/51 ★J5 511
Fructose prodn. - comprising contacting glucose with isom obtd. by culturing Agrobacterium microorganism
ENTR NAZ IDROCARBUR 15.02.79-IT-020212
*B03 E13 (D17) (28.08.80) C12p-19/24 C12r-01/**

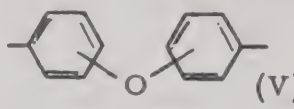
Prodn. of (syrup contg.)fructose comprises contacting glucose with an isomerase produced by Agrobacterium in enzymatic isomerising reaction. Culture medium c tains C source, P source, N source and inorganic salt step is carried out at temp. 75-35°C and pH 6.5-7.5. source is glucose, xylose, lactose, lactic acid salt, ac tate salt, corn steep liquor or glycerine. N source is meat, hydrolysed casein or soyabean, NH_4 salt, NO_3 s or urea. Typical compsn. has pH 7.0-7.2 and consist glucose (10 g/l) xylose (5 g/l), K di-hydrogen phospha (1.0 g/l) $MgSO_4$, $7H_2O$ (1.0 g/l) and NH_4Cl (2.0 g/l).

Fructose is used as a sweetening agent or wetting agent in confectionery or diuretics. 15.2.80 as 01676 (5pp15)

NIPS ★ D16 90889 C/51 ★J5 513
Enzyme adsorbent used for enzyme purificn. - has guanidine d supported water-insol. support
NIPPON SODA KK 17.04.79-JA-046068
A97 B04 (01.11.80) B01j-20/22 C12n-09

An adsorbent (I) for enzyme (II), which supports the cp of formula (III) on a water-insol. support (IV) directly or with a suitable carrier, is new. (II) is purified by b adsorbed in (I) and then eluted. $H_2N\text{-}A\text{-}CON{=}C(NH_2)\text{-}NH_2$

In (III), A is phenylene, naphthylene or (V)



(V)

(I) is used for affinity-chrom graphy. (III) is used as ligand of affinity-chromatography of (II). (III) exhibits strong affinity to s trypsin-like (II) as urokinase, t psin, etc. 17.4.79 as 046068(4pp)

IDEM ★ D16 91051 C/51 ★J5 514
Base material for adhering aquatic organisms - obtd. by inocul of e.g. Acinetobacter SP-A 16 on surface of glass material c with nutrient
IDEMITSU PETROCHEM KK 21.04.79-JA-049392
P14 (04.11.80) A01k-61

Base material for the adhesion of e.g. ear-shell, ark shell, oysters, top shells, sea squirts, sea urchins, e is obtd. by inoculation and multiplication of Acinetoba -SP-A-16 or Pseudomonas-SP-P-75, or a combinatio these on the surface of a plate material of plastic, gla etc., whose surface is coated with a nutritive medium agar-agar, gelatin, etc.

In the base material for the adhesion of aquatic org isms, e.g., ear-shell, ark-shell, oyster, top-shell, squirt, sea urchin, etc. The multiplication of microo isms and the generation of plankton is easily and conti ously carried out and therefore the supply of feeds for larva and youn fish can be satisfactorily continued c tributing to the induction and growth acceleration of a ic organism The infection of Vibrio bacteria to fish a shell is greatly reduced. 21.4.79 as 049392 (3pp117)

MIYA- ★ D16 91057 C/51 ★J5 514
Continuous Clostridium species spore prodn. - using multi-ferm system
MIYARISAN KK 21.04.79-JA-049224
(04.11.80) C12n-01/20 C12n-03 C12r-01/14

Prodn. Clostridium butyricum Miyairi (popular name Miyairi-Kin) spores by culturing continuously using m fermenter system comprises (a) setting the dilution r of the first fermenter to a prescribed range, (b) setti the filution rate of the other fermenters according to t first fermenter and (c) using several fermenters alter

y as a first fermenter.
The first to third fermenters are used for forming nut-tive cells, endospores and matured spores respectively d in them the dilution rate is set at < 0.75/hr. (0.3-0.6) 0.06- 0.07/hr and 0.04-0.05/hr respectively. Mixt. sugar (e.g. corn starch), amino acid (e.g. amino acid ixt. obtd. by hydrolysing defatted soy bean) and inorganic lt (e.g. $CaCO_3$), can be favorably used as the culture edium.
Prodn. depends upon the nutritive conditions in the rst fermenter and the form of the cells in the first ferm-ter is changed after 100 hours so that when culturing is ntinued, the prodn. of the spore in the third fermenter lls. By switching the first fermenter at proper intervals e prodn. can be continuous with high yield. The yield per l. of culture liq. is increased 3 times that of prior art d the dilution rate is increased 5 times. Prodn. per hour therefore increased 15 times. 21.4.79 as 049224 (4pp5)

KU ★ D16 91058 C/51 ★J5 5141-193
fining enzyme soln. - by contacting crude enzyme soln. which ilises poly:amine with complex contg. poly:amine and support d contacting with soln. contg. salt
TOKUYAMA SODA KK 19.04.79-JA-047184
(04.11.80) C12n-09
e method comprises (a) contacting the soln. contg. ude enzyme which utilises polyamine specifically as the bstrate, with the complex composed of a polyamine and pport ; and (b) contacting a solution contg. salt and opt. lyamine with the complex for eluting the enzyme. The lyamine is e.g. of formula NH_2-$(CH_2)_x$$NH_2$ or NH_2-(CH_2)-$NH(CH_2)_yNH_2$ (where x and y are each 2-16).
Enzymes which can utilise polyamine specifically as bstrate, e.g. putresinoxidase, spermidine-dehydrogen-e, etc. can be simply refined through affinity chromato-aphy. 19.4.79 as 047184 (6pp5)

TP ★ D16 91059 C/51 ★J5 5141-195
zymic prodn. of hydrogen gas - includes light irradiation of aq. stem contg. hydrogenase, substrate, e.g. cytochrome, and photo nsitiser
MITSUBISHI PETROCH KK 20.04.79-JA-048777
E36 (04.11.80) C12p-03
e method is characterised by irradiating visible light or ar UV-light on the aq. system contg. hydrogenase, ctron-transporter and synthetic photo-sensitiser and covering formed gaseous hydrogen.
In chloroplast two photochemical systems of PSI and II are present, that the electron of PSI-chlorophyll is ited to the state showing strong reducing activity by orbing light and that when the excited electron is tran-rted to hydrogenase through proper electron-transport-The hydrogenase can decompose water with forming eous hydrogen. PSI-chlorophyll serves as the photo-nsitiser. But usually PSI-chlorophyll is unstable and it been difficult to prepare hydrogen stably for long time h it. By using proper synthetic photo-sensitiser it is sible to prepare hydrogen stably for long time without deactivation of hydrogenase. As electron-transporter ural substrate such as ferredoxin, cytochrome C3, DP, NADPH etc. and synthetic substrate such as meth-iologen (1,1'-dimethyl-4,4'-dipyridylchloride), methyl-e, benzylbiologen, etc. can be used. As synthetic photo-nsitiser metal complex such as tris(2,2'-bipyridine henium xomplex, zinc tetraphenylporphyrin, etc., ine such as triphenylamine, etc., phthalocyanin, etc. be used. Practically the reaction is avorably practi-at 5-40°C at neutral pH in a airtight vessel under uum. 20.4.79 as 048777 (3pp5)

U ★ D16 91060 C/51 ★J5 5141-199
ntitative determination of spermidine in body fluid or extract - treatment with spermidine dehydrogenase, mercapto cpd., oline and colorimetry
OKUYAMA SODA KK 19.04.79-JA-047183
F16 J04 (04.11.80) C12q-01/32
. contg. spermidine is treated with spermidine dehy-genase in the presence of electron acceptor. The resulting soln. is treated with SH-contg. cpd., and then pyroline in the resulting soln. and spermidine in the soln. quantitatively analysed by colorimetry.
The soln. contg. spermidine includes urine, human etc. tissue extract etc. The present method is accurate and analysis is rapid.
The electron acceptor usable includes potassium ferricyanate, phenadine methosulphate, p-chlorophenol idophenol, etc. The SH-contg. cpd. usable includes mercato ethanol, cystein, etc. An amt. of the spermidine dehydrogenase to be used is 0.1 to 5.0 units. The reaction is conducted at 10 to 40°C for 0.5 to 5 hrs. 19.4.79 as 047183 (6pp22)

KOKU- ★ D16 91108 C/51 ★J5 5141-416
Triple vaccine of low toxicity - comprising Pertussis HA fraction, tetanus toxoid and diphtheria toxoid
KOKURITSU YOBO EISE 21.04.79-JA-048524
B04 (05.11.80) A61k-39/05
Triple vaccine of low toxicity is mass produced by (a) cultivating SO Kohama Strain; (b) fractionating the culture filtrate with ammonium sulphate, (c) centrifuging the resulting fraction with a sucrose density gradient to remove the most of endotoxin, (d) deactivating LPF and HSF in the resulting fraction mainly comprising HA using formalin and (e) adding tetanus toxoid and diphtheria toxoid.
Contents of endotoxin, LPD and HSF are decreased to 1/5 of the conventional total mycelium baccine, and conditions for deactivation of LPF and HSF are suitable for mass prodn. 21.4.79 as 048524 (4pp140)

TAKI- ★ D16 91257 C/51 ★J5 5142-085
Ground improving agent - contg. gypsum, dried yeast culture waste and basic alkaline earth metal cpd.
TAKI KAGAKU KOGYO K 19.04.79-JA-048685
C04 (06.11.80) C09k-17
Agent contains 100 pts.wt. gypsum, 10-400 pts. dried prod. of waste from yeast culture, and 1-50 pts. basic alkaline earth metal cpd. The yeast culture water is a filtrate obtd. after cultivating yeast in a nutrient culture e.g. sugar syrup, ammonium phosphate, ammonium sulphate, ammonia etc. and filtering off the yeast. The agent is prepd. by mixing the basic alkaline earth metal cpd. with a waste concentrate, drying, mixing the dried prod. with typsum and pelletising the mixt. The cpd. is e.g. Ca or Mg carbonate, hydroxide etc.
The yeast culture waste is usable and by addn. of gypsum and specified cpd. the biological activity is retained. 19.4.79 as 048685 (3pp)

SAKA/ D16 53268 B/29 =J8 0046-157
Pectin prodn. - by treating plant tissue with microorganisms of genus Trichosporon
SAKAI T 10.11.77-JA-135491
*(21.11.80) *J54070-495 +C12p-19/04 C12r-01/64*
Prodn. of pectin (I) comprises treating tissue of plant with one selected from (1) microorganisms (II) belonging to Trichosporon and having activity for extn. of (I); (2) (II) incubated culture medium or (3) extract (IV) or (III). The contact of plant-tissue with (II), (IV) is carried out pH 4-7 for 5-20 hrs.
(I) can be extracted easily without grinding plant tissue and the recovered (I) is of high purity. Examples of (II) are Trichosporon Peniciletum and its mutants. 10.11.77 as 135491 C12p-19/04, C12r-1/645 (21.11.80) SAKAIT (3pp)(J54070495)

KIKK D16 71742 Y/40 =J8 0046-158
Separating and refining (3',5')-cyclic adenylic acid - by adsorbing on active carbon, washing and eluting with aq. alkaline conc. alcohol soln.
KIKKOMAN SHOYU KK 25.02.76-JA-018845
*B02 (21.11.80) *J52102-298 C07h-19/20 +C12p-19/32*
Aq. soln. contg. 3',5'-cyclic adenylic acid (CAMP) and nucleic acid-relating substances is treated with active carbon to adsorb CAMP and impurities. The active carbon is washed with either (a) aq. alkaline dilute alcohol soln. or (b) aq. alkaline soln. and then with aq. alkaline

aq. dilute alcohol soln. The CAMP is then eluted with aq. alkaline conc. alcohol soln.

CAMP can be sepd. with high yield, and high pure CAMP (purity >94%) can be obtd. 25.2.76 as 018845 C12p-19/32, C07h-19/20 (21.11.80) KIKKOMAN SHOYU KK (6pp)(J52102298)

KIMU/ D16 78947 A/44 =J8 0046-159

Cytidine-phosphate choline prodn. - by culturing from cytidine-5'-mono:phosphate and choline using a microorganism Hansenula in medium contg. trypaflavin

KIMURA H 07.03.77-JA-023899

*B03 (21.11.80) *J53109-996 +C12p-19/32 C12r-01/78*

Prodn. of cytidinephosphate choline comprises culturing a microorganism belonging to Hansensula, Debaryomyces, Saccharomyces or Candida and being capable of producing cytidinephosphate choline from cytidine-5'-monophosphate and choline, in a nutrient medium contg. trypaflavin in an amt. of >5μg/ml under aerobic conditions, reacting cytidine-5'-monophosphate with choline in the presence of the resulting cells, or crude enzyme obtd. and recover -ing cytidenephosphate chloine from the reaction mixt.

Specific microorganisms are Hansenula jadino IFO 0987, Debaryomyces coudertii IFO 1381, Saccharomyces lactis IFO 1090 and Candida utilis IFO 0396. 7.3.77 as 023899 C12p-19/32, C12r-1/78 (21.1 .80) KIMURAH (3pp)(J53109996)

MITK D16 67544 Y/38 =J8 0046-706

Formaldehyde-free yeast mycelium prepn. - by washing with lower alcohols, or water and lower alcohol

MITSUI TOATSU CHEM INC 30.01.76-JA-008333

*C03 (D13) (26.11.80) *J52094-478 +C12n-01/16 C12r-01/78*

The yeast mycelium (I) is obtd. by culture in a medium contg. methanol as carbon source. (I) obtd. can be used for feeding animals and fish.

The yeast is Hansenula polymorphia (ATCC 26012) an Hansenula henricii (CBS 5765). These are cultured aerobically in a medium contg. methanol as carbon source, inorganic salts such as ammonium salts and nitrates, urea, cornsteep, liquor, casein, yeast extract and meat extract as nitrogen source and inorganic salts such as calcium salts, phosphates etc. as nutrients at 30-40°C and pH 3-7. Formaldehyde contained in the yeast mycelium in a concn. of 0-10 ppm can be washed off with >2 of (m) ethanol, n-propanol, iso propanol and water at room temp. to 60°C for 1-2 hrs. in a ratio of yeast mycelium mixt. of lower alcohols and water is 0.5-2.30.1.76 as 008333 C12n-1/16, (26.11.80) MITSUI TOATSU CHEM IND (3pp)(J52094478)

FRIN/ D16 68145 S/43 =J8 0046-707

Baking yeasts prodn

FRINGS H (FRI /) 08.04.70-OE-003194

*(D11) (26.11.80) *DT2109-896 +C12n-01/18 C12r-01/86*

Increased yields of yeasts, having high bread-raising power and good storage stability, are obtained by an accelerated fermentation process improved in that the volatile substance content in the fermentation medium is maintained between 0.01 and 0.20% by vol. by suitably regulating the supply of molasses tothe fermentation app-aratus. 8.4.71 as 022049 (clg.8.4.70-OE-003194) C12n-1/18 (26.11.80) FRINGS H (5pp)(J46003988)

KANE/ D16 14152 V/08 =J8 0046-708

Culture of methane-utilizing bacteria

KANEKO K 26.07.71-JA-055247

*(26.11.80) *J48022-678 +C12n-01/20 C12r-01/38*

The bacteria are cultured with a mixt. of CH_4 and O_2 which originates from algae, and the algae are cultured with CO_2 produced by the bacteria. 26.7.71 as 055247 C12n-1/20, (26.11.80) KANEKO K (5pp)(J48022678)

KURS D16 67540 Y/38 =J8 0046-

Polyvinyl alcohols decomposition from sewers etc. - using polyvinyl alcohols as carbon source in culture medium Flavobacterium

KURARAY KK 30.01.76-JA-009582

*A35 (A14 D15) (26.11.80) *J52094-471 C12r-01/20 +C02 C12n-01/20*

Decompsn. of polyvinyl alcohols (I) is by culturing a mi robe belonging to Flavobacterium (II) in a medium contg (I) as carbon source.

(I) contained in sewers industrial waste water etc. ca be digested by (II) and C.O.D. of the waste water can be reduced.

Example of (II) is Fravobacterium KP-13. (I) is di-p -vinyl alcohols having saponification value >60%, acetal sulphate esters and nitrate esters of (I) etc. Addn. of yeast extracts or corn steep liquor in concn. of 0.01-0. w/w% to the culturing medium can promote digestion of (I). 30.1.76 as 009582 C12n-1/20, C02f-3/00, C12r-1/2 (26.11.80) KURARAY KK (4pp)(J52094471)

DNIN D16 66558 V/38 =J8 0046-

Aerobic fermentation process - using mixed culture of hydrocarb consuming and non-hydrocarbon-consuming yeasts

DAINIPPON INK CHEM KK 26.02.73-JA-022125

*H04 (26.11.80) *DT2408-383 C12n-01/26 C12r-01/74*

In a continuous aerobic fermentation process using a mi culture of hydrocarbon-consuming and non-hydrocarbon consuming yeast varieties with regeneration of the resi- nutrient soln. the cellular material is extracted from th residual medium, and after the culture substances have been replenished the residual medium is recycled to the fermentation vessel.

No environmental pollution by contaminated effluent; no inhibitors are formed in the medium to prohibit grow all effluents are recycled; higher yields. 26.2.73 as 022125 C12n-1/26, C12r-1/74 (26.11.80) DAI. NIPPON SUGAR MFG CO (8pp)(J49109576)

RIKA D16 89665 R/48 =J8 0046

Alkaline protease enzyme from bacillus

RIKAGAKU KENKYUSHO 22.04.70-JA-034535

*(D25) (26.11.80) *NL7007-854 +C12n-09/54*

Microorganism stain No. 4 which belongs to the genus Bacillus is cultivated on a culture-medium containing carbonate at pH 6 to 11, to produce protease having op umum pH range of alkaline value on the medium. Amt carbonate to be contained in the culture medium is 0.5 %. The medium contains C source and N source such a soluble starch, potassium dihydrogen phosphate, yeast extract, peptone, magnesium sulphate, etc.

Carbonate is e.g. Na_2CO_3, $K2CO_3$, $NaHCO_3$, etc. Cu vation is e.g. at 37°C for 25-72 hours under aerobic conditions. Sepn. and purificn. of the protease from th culture medium may be conducted. Alkali protease of high activity can be obtd. 22.4.70 as 034525 C12n-9/45 (26.11.80) RIKAGAKU KENKYUSHO (7pp22)

MEIJ D16 19536 W/12 =J8 004

Antibacterial antibiotic BN-109 - isolated from Bacillus polym BN-109

MEIJI SEIKA KAISHA 17.07.73-JA-079948

*B04 (26.11.80) *DT2433-932 A61k-35/74 C07g-11 +C 01/04 C12r-01/12*

Antibiotic BN-109 is a new substance with an inhibitin action towards gram-negative bacteria. It is prod. by cultivating a NB-109 producing strain of the genus Ba (pref. Bacillus polymyxa BN-109) under aerobic condi pref. at 25-35 °C, and pH 6-7, in order to produce an accumulate the antibiotic in the aq. medium, and reco ing the antibiotic from the broth (pref. the filtering th medium, passing the filtrate over a column of a catio exchange resin, and extracting the antibiotic from the resin).

Antibiotic BN-109 inhibits the growth of gram-nega bacteria and has only very slight toxicity towards ani It is partic. suitable for the treatment and prophylaxi

ne dysentery, esp. since it is hardly absorbed from digestive tract (thus reducing the probability of residues edible tissues). 17. 7. 73 as 079948 C12p-1/04, A61k-74, C07g-11/00 (26. 11. 80) MEIJI SEIKA KAISHA LTD p)(J50029792)

AN- D16 64692 W/39 =J8 0046-713
ibiotic, R4H. - from Streptomyces lavendulae var R4 (FERM -P 4)
TOA NUTRITION CHEM 01.09.73-JA-097812
B04 (26.11.80) *J50048-194 +C07g-11 C12p-01/06 C12r-01/46

novel antibiotic R4H, was produced by Streptomyces endulae var. R4 (FERM-P 2083) and its mutant. In an ample S. lavendulae var. R4GB (FERM-P 2084) was tured on a medium (pH 7. 0) contg. glucose 0. 1, peptone) yeast extract 0. 5, NaCl 0. 3, KH_2PO_4 0. 1 and $MgSO_4$ 05% at 28° for 24 hr. The active substance in the culture trate was adsorbed on Amberlite IRC-50 (Na) eluting h 1 N HOAc, concd. under reduced pressure, pptd. with Me_2CO, extd. with MeOH, and again pptd. with Me_2CO lding 8. 7 g crude prepn. from 20 l. culture broth. H was purified by SE-Sephadex C-25, eluting with 0. 1, 5, and 1. 0 M pyridine-HOAc buffer (pH 5. 0) and cellulo- column eluting with a mixt. of n-PrOH/pyridine/HOAc O (15:10:3:12). R4H was a basic, white hydroscopic wder decomposing at 200° and had mol. formula of $C_{8-9}H_{55-6}O_{7-10}N_{8-9}.4HCl$ and sp. rotation of $[\alpha]_D^{20}$= . It was sol. in water and MeOH and insol. in EtOH d other org. solvent. It was positive in ninhydrin, diazo, son-Morgan's and Reidon-Smith's reactions. It gave eptolysine, β-lysing, and amino sugar by the acid drolysis (6 N HCl, 110° 12h). It was effective against h Gram positive and negative bacteria. Toxicity against ce was LD_{50}= 200 mg/kg by i. v. injection. UV and ir sorption and NMR spectron and R_f values on paper and lulose thin layer chromatography are presented. 9. 73 as 097812 C12p-1/06, C07g-11/00, (26. 11. 80) A NUTRITION CHEM (8pp)(J50048194)

D D16 57823 W/35 =J8 0046-714
siologically active siastatin - obtd. by culturing Streptomyces ticillus var. quintum (FERM-P 507)
ZH BISEIBUTSU KAGAKU KEN 00.00.74-JA-094945
B04 (26.11.80) *J50046-895 +C07g-17 C12p-01/06 C12r-01/46

novel physiologically active substance, saistatin (I), s produced from Streptomyces venticillus var. quintum ERM-P 507). In an example, the strain was cultured on medium contg. 1. 0% glucose, 1. 0% starch, 0. 75% pep- e, 0. 75% meat extract, 0. 3% $NaCl_2$, 0. 1% $MgSO_4$. O, 0. 1% K_2HPO_4, plust metal ion soln. 1 ml/l. at 27°C 8 days. The culture filtrate (850 ml) was treated with g. active C at pH 7. 2 and (I) in the filtrate was adsor- on Amberlite IR-120. (I) was eluted with 0. 1N NH_4OH concd. to dryness obtaining 1. 13 g brown powder. powder (224 mg) was dissolved in HCOOH-pyridine 3. 0) and chromatographed on Dowex (50 x 8). Active ctions were collected and concd. to dryness obtaining mg. pale brown powder; its ID_{50} against sialidase was meg. (I) was separated into two components; (A) and . Needlelike crystal of (I-B) decompsd. at 137°C, $[\alpha]_D^{25}$ = +57. 2° and elemental analysis of C 40. 77; .88; N 11. 08; and O 41. 23%. UV and IR absorption and R spectra, R_f values on avicel thin layer chromatograph, Rm in high voltage paper electrophoresis were obtd. was soluble in water but insoluble in organic solvent such HOAc, pyridine, MeOH, EtOH, M_2CO, and petroleum r. (I) inhibited sialidase of bacteria and Streptomyces did not show any toxicity against mice injected i. p. at mg/-kg. 26. 1. 73 as 094945 C12p-1/06, C07g-17/00 11. 80) MICROBIAL CHEM RES INST (13pp)(J50046895)

G D16 60744 X/32 =J8 0046-715
el antibiotic R41 prodn. - by cultivation of Streptomyces strain
OA GOSEI CHEM IND LTD 23.12.74-JA-146766
B04 (26.11.80) *J51073-194 C07g-11 +A61k-35/74 C12p-01/06 C12r-01/46

R41-producing microorganism, e. g. Streptomyces endulae variant R41 (FERM-P 2083) or its UV-induced mutant. St. lavendulae variant R4GB (FERM-P 2084) is cultured in a nutrient medium and the antibiotic, R41, recovered from the cultured broth. The above-mentioned microorganism can easily give various variants or mutants either naturally or artifically (with UV, radiation or chemicals). The R4GB strain which is characterised by its greenish aerial mycelium has been induced from R41 strain by radiation of UV rays. The preculture is effected at 28°C for 24 hrs. in a liq. nutrient medium. The seed culture of St. lavendulae R4GB is inoculated to a nutrient medium (20-L)with an inoculum size of 1 L, and the cult.- vation is effected at 28°C for 24 hrs. From the cultured broth, a crude powder (8. 7g) is obtd. 2 g of the crude powder gives 40 mg of purified R41 as a white powder. 23. 12. 74 as 146766 C12p-1/06, A61k-35/74, C07g-11/00, C12r-1/665, (26. 11. 80) TOA CHEM IND CO LTD (7pp) (J51073194)

KYOW D16 07001 T/05 =J8 0046-717
L-tyrosine prodn - using coryneform bacteria
KYOWA HAKKO KOGYO KK 17.07.70-JA-062062
B05 E14 (26.11.80) *DT2135-246 +C12p-13/22

Microorganism of genus Corynbacterium, is resistant to analogues of L-tyrosine or L-phenylalanin and capable of producing tyrosine is cultivated in a culture medium, to produce L-tyrosine is then recovered from the culture broth.

Microorganism usable Corynbacterium glutamicum ATCC 21568 ATCC 21569, etc. The culture medium contains a C source e. g. glucose, fructose, sucrose, etc. N source e. g. NH_3 ammonium chloride, peptone, yeast extract, meat extract, etc. an inorganic substance e. g. KH_2PO_4, $MgSO_4$, NaCl, etc. The cultivation is conduc -ted at 20-40 C for 2-5 days at neutral pH range under aerobic conditions. 17. 7. 70 as 062062 C12p-13/22 (26. 11. 80) KYOWA FERMENTATION KK (3pp22)

KYOW D16 48485 W/29 =J8 0046-718
Fermentation method of prodn. of L-tryptophan - using pseudomonas, methanomonas or protaminobacter microorganisms
KYOWA HAKKO KOGYO KK 23.07.73-JA-080867
B02 E13 (26.11.80) *J50029-791 +C12p-13/22 C12r-01/*

L-Tryptophan (I) was produced by methanol-utilising microorganisms of the Psedomonas. Methanomonas or Protaminobacter classes on MeOH-media. In an example, 4-methyltryptohan-resistant Methanomonas methylobora 4MT-6, which was obtd. from Methanomonas methylobora ATCC 21369, was inoculated in a medium contg. 2% MeOH, with a pH 7. 2, and shake cultured for 64 hrs. at 30° adding 1%, 2% and 2% MeOH after 16, 24, and 40 hr., respectively. The final amt. of (I) accumulated was 58 mg/ 1., and 73 mg. crystal of (I) was obtd. from 2 l. of broth. Pseudomonas insuata ATCC 212276, and Protaminobacter candidnus ATCC 372 gave accumulations of 30 mg./1. and 14 mg/1,, respectively. 23. 7. 73 as 080867 C12p-13/22 (26. 11. 80) KYOWA FERMENTATION KK (3pp)(J50029791)

TAKE D16 26544 W/16 =J8 0046-719
Purine derivs prepn - from B: subtilis culture medium by adsorption on active carbon, eluting and chromatog. sepn
TAKEDA CHEMICAL IND KK 29.03.73-JA-035913
B02 (26.11.80) *J49124-290 +C07h-19/16 C12p-19/40 C12q-01/34 C12r-01/07

Purine derivs. were produced by Bacillus subtilis. In an example, a mutant of B, subtilis (FERM-P 1956) requiring adenine and histidine was cultured on a medium (pH 7. 6) contg. maltose 12, $(NH_4)_2SO_4$ 2. 3, dried yeast 1. 2, $MgSO_4$ 0. 2, $CaHPO_4$ 0. 5, $Ca_3(PO_4)_2$ 0. 5, and $CaCO_3$ 2. 0% plus biotin 0. 2 γ/ml at 37° for 4 days. Purine derivs. were adsorbed on an active C from the culture supernatant at pH 3 eluting with 50% EtOH contg. 1. 4% NH_4OH and fractionated by chromatog. on Dowex 1 x 8 at pH 4. 4. Fraction 1 contg. 5'-(α-D-maltosyl)guanosine (I), 5'-(α-D-glucosyl)inosine (II), and 5'-(α-D-maltosyl)inosine (III) and fraction 2 contg. 5'-(α-D-glycosyl)guanosine (IV), uridine, uracil, and inosine were obtained. (III) was sepd. from (I), and (II) by Amberlite IR-120 (H^+). (I) and (II)

were sepd. by Sephadex G-15 and (IV) was purified by Amberlite IR-120 (H^+). (I), (II), (III), and (IV) were obtain -ed at 107, 253, 85, and 126 mg, resp. 29.3.73 as 035913 C12p-19/40, C07A-19/16, C12Q-1/34, C12r-1/07 (26.11.80) TAKEDA CHEM IND LTD (7pp)(J49124290)

TORA ★ D16 91449 C/51 ★J8 0046-720
Interferon prodn. - using cell cultivation elements comprising plates for adhering cells, support frame and devices for introducing liq. or gas
TORAY IND INC 27.10.75-JA-128338
B04 (26.11.80) C12p-21

In prepn. of interferon, cell-cultivation elements consisting of plate for fixing the cells a supporting frame and means for introduction of gas or liquid are piled, then cell suspension is introduced into the element, followed by cultivation, and then the cells produced are treated with agent for inducing interferon prodn. 27.10.75 as 128338 C12p-21/00 (26.11.80) TORAY INDS INC (4pp22)((J52054019)

NONA= ★ D16 91471 C/51 ★SU-730-804
Prodn. of light beer with bitter flavour - by fermenting wort with specified Saccharomyces carlsbergensis strain for high alcohol content
NON-ALCOHOL BEER 11.04.78-SU-613637
(30.04.80) C12c-11/04 C12k-01/02

Yeast strain Saccharomyces carlsbergensis II-B is used in brewing industry to produce light beer with bitter flavour and high alcohol content. This yeast strain has high multiplication rate with increased wort fermentation activity. Due to the fast submerged fermentation of sugars and reduced amts of by-prods in fermented wort the final prod has improved quality andthe brewing process is accelerated.

The strain assimilates glucose fructose sucrose, maltose and raffinose. It can ferment wort at 6-9°C with 4-fold rise in number of yeast cells after 24 hrs of fermentation. After 7 days of brewing, partly fermented wort contains 3.2 wt.% alcohol.

Zhukova, A. I., Lyasmanovich, R. A., Mogileva, V. G., et al Bul. 16/30.4.80.11.4.78. as613637(3pp938).

EXTR= D16 79618 X/43 =SU-730-805
Continuously imparting champagne properties to wine - by combining sec fermentation and yeast enrichment in one apparatus
EXTRAMURAL FOOD IND (FOOD=) 09.07.75-SU-155654
*(30.04.80) *DT2607-432 C12g-01/06*

In a continuous prodn of champagne-type sparkling wine, as claimed in Parent Patent 582279. The champagnisation process is accelerated and the prod quality is improved by two-stage addn of fresh yeast culture during the second and final stages of the fermentation.

The freshly cultured yeast cells are injected during the secondary fermentation stage when fermentation rate drops due to the high microbial cell density on the bottom of the vessel and when sugar content of the partly fermented must be reduced to 0.8-1.2%. The fresh yeast culture is added again at the end of the champagnisation process, when the residual sugar content is reduced to 0.4-0.6%.

Sarishvili, N. G., Oreshkina, A. E., Storchevoi, E. N., Bul. 16/30.4.80.9.7.75. as155654 Add to 582279(2pp938).

LEFO= ★ D16 91473 C/51 ★SU-730-808
Microbiological prodn. of lactic acid for use with yeast starters - involves culturing Lactobacillus delbruckii L-3 bacterial strain in sugar-contg. nutrient soln.
LENGD FOOD IND INST 10.11.77-SU-542082
E17 (30.04.80) C12k-03

Microbiological prodn of lactic acid includes the fermentation of sugar-based raw material with lactic flora bacteria. The prod is used in bread-making and alcoholic fermentation for the acidification of yeast-contg. starters.

The yield of lactic acid is increased and the fermentation process is accelerated if lactobacillus delbruckii L-3 bacterial strain is used as lactic acid producer. The sugar soln., when inoculated with above bacterial strain an fermented at 48-50°C for 9 days, contains ≤2.2% lact acid.

Golurchina, R. N., Nikulina, L. D., Kremneva, N. P., et Bul. 16/30.4.80.10.11.77. as543082(2pp938).

MOLE- D16 48211 X/26 #SU-73
Recovering unicellular protein grown on methanol - in high using a specific strain of bacterium Methylomonas
MOLEKULARBIOLOGISCH 12.12.74-DT-458851 (09.04.7 343158)
*(30.04.80) *DT2458-851 C12d-13/06*

Microbial strain Methylomonas sp DSM 580 is culture nutrient contg. methanol and the resulting microbial b mess is used as protein source. The fermentation proc is accelerated and the final prod quality is improved b culturing Methylomonas strain in nutrient contg. initia 0.5-5 vol.% methanol with addn of nutrient salts, and aerated with air contg. 20-60 vol.% oxygen, at 0.5-1. vol/vol/min.

In a continuous process at 20-45°C, the conc. of me anol in the nutrient at pH 4.5-9.6 is maintains at 0.01 vol.% and the aeration rate is maintained at 0.1-0.2 v vol/min for microbial cell growth rate of 0.1-0.5 hr^{-1} Wagner, F., Sam. H., Bul. 16/30.4.80.9.4.76. as 34315 (3pp938).

UPOT= ★ D16 91615 C/51 ★SU-73
Production of inter-variety hybrid strains of potatoes - protoplasts treated with polyethylene glycol solution before joi to overcome incompatibility
UKR POTATOE CROP 09.01.79-SU-710489
A97 P13 (05.05.80) A01h-01/04

The selection of inter-variety hybrid strains of potato involves joining isolated protoplasts and cultivating th in nutrient media.

In order to overcome the incompatibility barrier a to speed up the prodn. of hybrid strains by treating th protoplasts before joining with a soln. of polyethylene glycol of mol wt. of 1500-2000 at a concn. of 40-50% 15-25 min at room temp.

Then the protoplasts are washed in a 0.16-0.17M soln. of potassium nitrate once or twice before planti in a nutrient medium until callouses form. After this, they are transferred to a hormone-enriched medium u til the appearance of hybrid shoots, and then planted c for rooting.

Kuchko, A. A., Butenko, R. G., Bul. 17/5.5.80.9.1.79. a 710489(3pp1439).

BIOT= ★ D16 91616 C/51 ★SU-73
Chlorella cell membrane destruction for livestock feed addit by processing heat-treated suspension with trichoderma lignor fungus culture for higher protein output
BIOTECH RES INST 02.12.76-SU-426425
C03 P13 (D13) (05.05.80) A01h-13

System for destroying chlorella cell membranes, for e.g. in the prepn. of protein and vitamin additives for livestock feed involves thermal treatment of a suspens of the chlorella, cooling and subsequent fermentative drolysis.

In order to ensure more complete destruction of th cell membranes and a higher protein output, the therm treatment of the suspension is at 85-98°C for 3-5 min with subsequent cooling to 45-48°C and fermentative h drolysis by processing the suspension with a culture o the fungus Trichoderma Lignorum-6 for 1-3 hrs.

The fungus culture is applied to the suspension at t rate of 250-400 units of S-ferment per 100 grams of chlorella dry wt.

Al'bitskaya, O. N., Losyakova, L. S., Oshanina, N. P., et Bul. 17/5.5.80.2.12.76. as426425(3pp1439).

OLD= ★ D16 91636 C/51 ★SU-731-971
fluenza virus infection prevention - by subcutaneous injection of activated virus vaccine and intranasal administration of assivated virus vaccines
COLD RES INST 21.12.77-SU-557767
B04 (15.05.80) A61k-39/12
nfluenza virus infection in hospitals; police, public transort etc staff is prevented in pre-epidemic period by twotage immunisation with antiviral vaccine. The inactivatd virus vaccine is first injected subcutaneously and then assivated active virus contg. vaccine is introduced intraasally. The latter vaccine is obtd by multistage passivaion of influenza. A virus using chick embryo.
The method increases immunity and prevents infection during repeated contact with large amts of virus-contg. material, e.g. air.
Rudenko, L. G., Zykov, M. P., Zoshchenko, N. Ya., et al Bul. 17/5.5.80. 21.12.77. as557767(3pp938).

OOD= ★ D16 91813 C/51 ★SU-732-384
parkling wine prodn. line - uses carbon di:oxide evolved during ermentation stage for wine saturation in second stage
FOOD IND CORR COLL 03.01.78-SU-565991
(08.05.80) C12g-01/06
Accelerated fermentation in the prodn. of sparkling wine s obtained by increasing the content of CO_2 using two tages. Fermentation is carried out at 0.05-0.1 MPa and 3-15°C with simultaneous estn. of CO_2 evolved during the ermentation. The gas is then fed to the wine saturation tage, with holding at cooling temp. and pressure of 0.4-.45 MPa.
The wine, following the biogeneration process, is trans ferred to a heat exchanger where it is cooled to minus -4°C and then fed to heat-insulated reservoirs acting as bsorbers. The reservoirs receive the CO_2 evolved by fermentation.
ronshtein L. I., Dubinchuk L. V., Bakulin V. P. et. al. Bul. 7/5.5.80 3.1.78 as 565991 (3pp89)

YUR/ ★ D16 91814 C/51 ★SU-732-385
Grape must clarification unit - has a sprayer of inert gas and a ompensator connected to settling tanks
TYURIN T S 02.02.77-SU-449292
(08.05.80) C12h-01/02
Accelerated flotation of suspension in must combined with limination of must losses and maintenance of aromatic ubstances are provided by the unit for clarifying the must. : comprises an inert gas sprayer fitted upstream of the irst settling tank. The SO_2 metering unit is mounted between the last feeder of clarifying agent and the sprayer to hich it is connected.
The manifold feeds inert gas into the settling tanks from here air is expelled. The condenser and compensator prevent escape of must and compensate volume changes due o temp. variations. When tanks are filled with the inert as, the must is admitted through clarification sections. ach tank holds the must for 2-6 h. and the clarified prod. s extd. by a tiltable tube.
yurin S. T., Subbotin V. A., Lukyanov B. M. et. al. Bul. 7/5.5.80 2.2.77 as 449292 (3pp89)

OOD= ★ D16 91868 C/51 ★SU-732-742
ine type gas chromatographic determn. - by determn. of mponents of liq. and gaseous phase components to define type of ne and detect falsification
FOOD IND CORRESP 15.12.77-SU-555272
S03 X25 (08.05.80) G01n-33/14
nown method for determn. of the type of wine in viniculre by physico-chemical evaluation of bouquet determines mponents of the gaseous phase of the wine by gas chrom tography. For greater accuracy and to establish falsifiation of the type, components of the liq. phase are also termined by gas chromatography and the type is defined the formula $y = k_1x_1 + k_2x_2 + \ldots + k_nx_n$, where k_1-k_n - effts. for the component content of both phrases, and x_n - components. The type is now differnetiable by gar, alcohol, acid and other components.

Avakyants, S. P. Bul. 17/5.5.80 15.12.77 as 555272 (4pp)

MOBI ★ D16 91887 C/51 ★US 4236-349
Two-stage prodn. of algae bio:polymers - by growth of algae biomass, then prodn. of bio:polymer with nitrogen deficiency
MOBIL OIL CORP 24.07.78-US-927698
A97 C03 H01 P13 (D13 D15) (02.12.80) A01g-07
The known prodn. of biopolymers (I) by cultivation of algae in aq. media in the presence of a C source and incident light energy and in which (I) prodn. is favouring cell division to a senescent phase favouring (I) prodn. is improved as follows: (a) the growth phase is effected in a continuous 1st stage in which fresh N-contg. nutrient medium is continuously supplied to the culture to sustain exponential cell growth; and (b) concomitantly a portion of the culture is transferred to a separate 2nd stage in which a C source is supplied but the supply of N-source is limited to create an N-deficiency and hence enhance (I) prodn.
The 2-stage process above gives enhanced yields of (I). (I) are known to be useful as thickening agents for mobility control in waterflood oil recovery, as food additives, as flocculants for waste H_2O treatment, in soil conditioning, and as drilling mud extenders. 24.7.78 as 927698 (9pp).

SERN/ D16 13387 C/08 =US 4236-445
Convergent twin bands filter press partic. for pressing grapes - has one tilting band to adjust angle of convergence
SERNAGIOTTO R 04.05.78-IT-023012
*P71 (02.12.80) *FR2424-809 B30b-09/24*
Continuous filter press for general prods. partic. grapes consists of a pair of moving belts between which the grapes are fed. The sides of the belts are sealed by an arrangement which is adjustable to compensate for operational changes in the angle of convergence between the belts. At least the lower belt is perforated. Pref. the lower belt is fixed and the upper belt is pivotable to alter the convergence angle.
Oxidn. of grape juice is prevented. 3.5.79 as 035892 (5pp1376).

WHAL- D16 74013 C/42 =US 4236-892
Sepn. and quantitative analysis of copropophyrin and uroporphyrin - by adsorbing on anionic exchange resin and eluting with dilute hydrochloric acid of differing concn.
WHALE SCIENTIFIC 01.12.78-US-965429
*B04 J04 (02.12.80) *J55075-651 G01n-33/72 +G01n-21/64 G01n-31/06*
Selective sepn. and quantitation of coproporphyrin (I) and uroporphyrin (II) in urine is effected by ion exchange in which a buffered urine sample is passed through an ion exchange resin, followed by washing non-adsorbed materials from the column.
Process comprises first eluting and collecting adsorbed (I) present on the ionic exchange resin with a first normality of HCl. Adsorbed (II) is eluted and collected with a second normality of HCl. Finally the concns. of the adsorbed (I) and (II) collected are measured against a known standard.
Used as a diagnosis technique for many disorders and abnormalities. 1.12.78 as 965429 (7pp936).

MINN D16 77032 C/43 =US 4236-893
Determn. of antigen specific antibodies in liquid - by using piezoelectric oscillator with specific antigen bound to it
MINNESOTA MINING CO 09.04.79-US-028348
*A96 B04 S03 (S05 V06) (02.12.80) *WP8002-201 G01n-33/54 H01l-41*
At least one class of antigen-specific antibodies is quantitatively determined by (i) contacting a liq. sample suspected of contg. an antibody with the surface of a piezoelectric oscillator having a layer of antigen for which the antibody is specifically adsorbed; (ii) washing and drying the oscillator; (iii) measuring the resonance frequency of the oscillator; (iv) contacting the surface of the oscillator with a liq. reagent contg. a predetermined amt. of a material reactive with a particular class of the antibody; (v) washing and drying the oscillator; and (vi) measuring the change in resonance frequency of the oscillator from

the first measurement.

The amt. of antibody and the amt. of a particular class of that antibody can be determined in the same assay. Pref. a layer of polystyrene is present on the oscillator. 9.4.79 as 028348 (8pp982).

MERI ★ D16 91979 C/51 ★US 4237-033

Pretreatment of micro:carrier beads - with heated foetal calf serum, to improve suitability as a surface for cell culture

MERCK & CO INC 23.04.79-US-032302 (10.03.78-US-885137)

A96 (02.12.80) C08l-89

Treatment of microcarrier beads to enhance their suitability as a surface for cell (I) culture consists of soaking the beads in heated fetal calf serum (II) before (I) are cultured on the beads.

Soaking treatment is for 3-60 (5-20)min. at 65-95 (75-90)°. Suitable beads are prepd. from e.g. a matrix of cross-linked dextrans, polyacrylamide, polystyrene, or styrene divinylbenzene copolymer lattice. The matrix pref. has anion exchange gps. bound to it. Suitable beads include 'DEAE Sephadex A25' (RTM), 'Amberlite IR45' (RTM), etc.

Pretreatment of the beads minimises inoculum loss and lack of reproducibility associated with their use in the stirred, mass culture of vertebrate anchorage dependent cells (e.g. prim. and diploid cells). 23.4.79 as 032302 (3pp478).

BACT- ★ D16 92022 C/51 ★US 4237-115

Vaccine contg. pili sepd. from E coli strain - used for protection against porcine neonatal colibacillosis

BACTEX INC 23.11.77-US-854343

B04 C03 (02.12.80) A61k-39/02

Vaccine compsn. capable of raising the antibody level of pigs to provide protection against neonatal porcine colibacillosis caused by a 1st gp. of E. coli strains (I) contains (a) pili sepd. from a 2nd strain of E. coli organisms (II) or their components and (b) a pharmacologically acceptable carrier pref. physiological saline. The cells of (I) organisms are agglutinable by serum contg. antibodies against pili from (II). (I) may be the same strain as (II).

The vaccine is esp. for protection of newborn piglets against neonatal colibacillosis. 23.11.77 as 854343 (7pp).

BIRA D16 60709 C/35 =US 4237-218

Insol. cationic copolymer cell culture carrier - prepd. from hydrophilic monomer, crosslinker and quaternised aminoalkyl acrylate, acrylamide or vinyl ketone

BIO RAD LABORATORIE 09.02.79-US-010648

*A96 S03 (A14 A91 S05) (02.12.80) *DT2940-150 A01n-01/02 C08f-18*

Attachment-dependent cells are grown by (i) providing a suspension comprising cell carriers, an inoculum of the cells and nutrient-contg. growth medium; and (ii) agitating to keep the suspension in motion at 20-45°C. The cell carriers comprises an insol. cationic copolymer having a charge density of 0.05-0.15 meq/ml formed by the copolymerisation of (a) a hydrophilic monomer, (b) a cross-linking monomer selected from di- and polyvinyls and (c) a cationic monomer of formula $CH_2=CR_2.C(=O).Y-(CH_2)_n-\overset{\oplus}{N}R_3R_4R_5.A^{\ominus}$.

In the formula, Y is O, NH or CH_2; A is an anion; R_2 is or lower alkyl; n is 0-6; R_{3-4} are each 1-4C alkyl; and R_5 is H or 1-4C alkyl. The copolymer carrier is impervious to bacterial or enzyme attack. 9.2.79 as 010648 (7pp982).

UNIW ★ D16 92061 C/51 ★US 4237-219

Radioimmunoassay of creatine kinase B isoenzymes - by competitive displacement using antibody to purified BB isoenzyme

UNIV OF WASHINGTON 27.10.77-US-846095

B04 (02.12.80) C12q-01/66

Radioimmunoassay method for quantitative determn. of a human creatine kinase (CK) isoenzyme contg. the B subunit (i.e. MB or BB isoenzyme) comprises (a) incubating the test sample with an excess of antibodies to purified BB CK, (b) incubating with an excess of radioactively labelled purified BB or MB CK, (c) removing unreact labelled isoenzyme, and (d) measuring the radioactivi the antibody-isoenzyme complex.

The process allows accurate determn. of serum M without interference from the MM isoenzyme, and acc determn. of tissue or blood BB CK. It may be useful earyl diagnosis of myocardial infarction and other dis orders involving release of BB CK into the plasma. 27.10.77 as 846095 (9pp367).

SCHD D16 73674 C/42 =US 423

9-Alpha-hydroxy-4-androstene-3,17-di:one prodn. - by r biological hydroxylation of 4-androstene 3,17-di:one Corynespora cassicola ATCC 16718

SCHERING AG 15.11.78-DT-850047

*B01 (02.12.80) *DT2850-047 C12p-33/06*

9α-Hydroxy-4-androstene-3,17-dione (I) is prepd. by menting 4-androstene-3,17-dione with a culture of Corynespora cassicola ATCC 16,718. (I) has good an androgenous and antiestrogenous effect. It is also an -mediate for 4,9(11) androstadiene-3,17-dione, which be converted into pharmacologically active steroids. yields are provided.

Typically culture B broth contains 6% liq. dextrin 1% corstep liquor, 0.2% $NaNO_3$, 0.1% KH_2PO_4, 0.2% K_2HPO_4, 0.05% $MgSO_4$, 0.002 $FeSO_4$ and 0.05% KCl. mixt. is innoculated with elutriation of an oblique agar -ture of Corynespora cassicola ATCC 16,718. 19.11. as 095740 (3pp964).

BOEF D16 33326 B/18 =US 423

Maltose-phosphorylase and beta-phosphoglucomutase pro useful in alpha-amylase clinical assay, from specific Lactobc and Streptococcus strains

BOEHRINGER MANNHEIM GMBH 26.10.77-DT-748036

*B04 S03 S05 (02.12.80) *BE-871-530 +C12n-09/12 C12q-0*

An enzyme compsn. comprising ≥ 1 selected from m tose phosphorylase and β-phosphoglucomutase is obtd. from microorganisms. Process comprises extracting compsn. from a microorganism selected from Lactob lus brevis DSM20054, NCIB 8836, 8561 and 8562, Lac bacillus planatarum DSM 20174 and 43, Lactobacillus reuteri DSM 20016, Lactobacillus Fermentum DSM 2 Streptococcus spec. DSM 1118, DSM 1119, DSM 1120 DSM 1121.

Compsn. is used for the determn. of α-amylase by simplified process. 20.10.78 as 953723 (4pp982).

TOXN D16 01925 C/02 =US 423

Lactate oxidase enzyme specific to L-lactic acid - useful for acid analysis by conversion to pyruvic acid and hydrogen pero

TOYO JOZO KK 17.06.78-JA-073619

*B04 E17 S03 (S05) (02.12.80) *DT2924-470 C12n-09/04 01/26*

An enzyme lactate oxidase has at least substrate spe ficity to L-lactic acid and an enzyme action which cata lyses the reaction L-lactic acid + O_2 ⟶ pyruvic acid H_2O_2.

Pref. the enzyme has an optimum pH of 6-7, an op mum temp. of ~35°C, an isoelectric point of pH 4.6 0.3 and a molecular wt. of 80000 ± 10000. The enzyn obtd. from Pediococcus sp. B-0667, Streptococcus sp 0668, Aerococcus viridans IFO-12219 or IFO-12317.

Enzyme can be used for the quantitative determn. c lactic, acid in samples. 18.6.79 as 049560 (12pp982).

MERE D16 79580 B/44 =US 423

Testing for microorganisms on surfaces - by contacting w porous, adhesive sheet and placing sheet on culture medium

MERCK PATENT GMBH 21.04.78-DT-817503

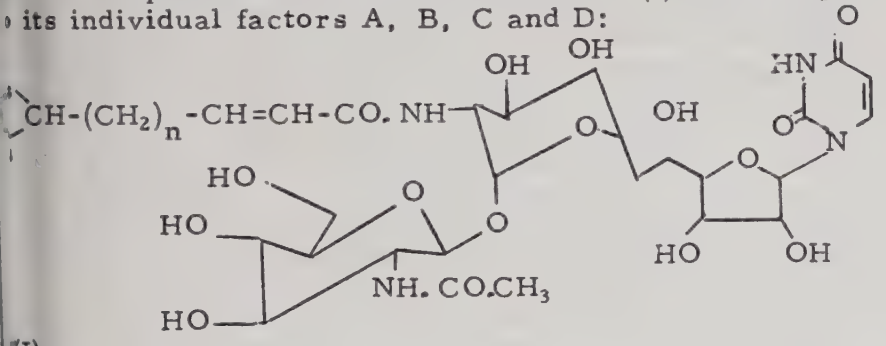
*P82 (02.12.80) *GB2019-434 +C12q-01/24*

Presence of microorganisms on a surface can be dete by lifting the microorganism from the surface using a adhesive coated flexible porous sheet, and incubating removed sheet on a culture medium. The side of the holding the microorganisms is uppermost on the medi

The sheet pref. has a pore dia. < 0.5 μm. 20.4.7 031802 (4pp1376).

★ D16 92062 C/51 ★US 4237-224
poration of foreign genes into microorganisms - by formation with DNA produced from compatible and foreign ients
LAND STANFORD UNI 04.01.79-US-001021 (04.11.74-US-20691)
04 (02.12.80) C12p-21
lication of biologically functional DNA (I) is carried out a) transforming a compatible unicellular organism (II) (I) to produce transformants, (b) growing (II), and (c) ating the transformants by means of a phenotypical t imparted by (I).
I) is prepd. in vitro by (i) cleaving a viral or circular mid DNA which is compatible with (II) to form a 1st ar segment contg. an intact replicon, and (ii) combin- the 1st linear segment with a 2nd linear DNA segment ch has ≥1 intact gene foreign to (II) and has termini ch are ligatable to the termini of the 1st linear seg- nt, with the proviso that ≥1 of the 1st and 2nd segments tains a gene for the aforesaid phenotypical trait.
The process makes it possible to obtain transformed teria capable of various metabolic or synthetic functions inherent in the parent bacteria, e.g. N_2 fixation, tosynthesis or synthesis of antibiotics, hormones or teins (esp. enzymes). 4.1.79 as 001021 (+17.5.76, 1.78-US-687430, 959288) (10pp367).

★ D16 92063 C/51 ★US 4237-225
icamycin produced by cultivation of Streptomyces chartreusis - ful as antibacterial and antiviral agent and glyco-protein thesis inhibitor
ELI LILLY & CO 01.12.78-US-965547
B03 (02.12.80) C12p-19/60
nicamycin (I) is produced by cultivation of Streptomyces rtreusis NRRL 3882 under submerged aerobic condi- ns on a suitable culture medium and then separating (I) m the co-produced antibiotic A-23187. (I) can be split o its individual factors A, B, C and D:

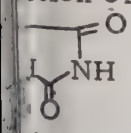


(I)

(A, n=9; B, n=10; C, n=8; D, n=11)

I) is an antibacterial and antiviral agent and an inhibi- of glycoprotein synthesis. 1.12.78 as 965547 (7pp916).

F D16 50085 A/28 =US 4237-227
Carbamoyl-alpha-aminoacid prodn. - by enzymatic hydrolysis substd. hydantoin, useful as intermediates for pharmaceuticals
ANEGAFUCHI KAGAKU 30.12.76-JA-157713
05 E16 (E14) (02.12.80) *DT2757-980 +C12p-13/02
-Carbamoyl-α-amino acids of formula HOOC-CHR-NH $-NH_2$ (I) where (R is opt. substd. alkyl or aryl) are d. by subjecting 5-substd. hydantoins of formula (II) tion of an enzyme which is in the form of a cultured broth contg. microorganisms or cells or treated cells of the microorganisms.



(II)

he microorganisms are of genus Achromobacter, bacter, Aeromonas, Agrobacterium, Alcatagenes, robacter, Bacillus, Brevibacterium, Corynebacterum, robacter, Erwinia, Escherichia, etc., the culture an aq. medium at pH 7-10. The enzyme is capable drolysing the 5-substd. hydantoins to produce only rms of (I).
) are useful as medicinal intermediates. 21.12.77 as 53 (10pp964).

/ZHDA/ D16 10185 B/06 =US 4237-228
Fermentative prodn. of L-isoleucine - using Brevibacterium flavum mutant, used e.g. as additive for foods and animal feeds or pharmaceutical intermediate
ZHDANOVA N I (GENE=) 29.06.77-SU-501219
B05 E16 (02.12.80) *DT2828-387 C12p-13/06 +C12n-15 C12r-01/13
L-Isoleucine is produced by direct fermentation of a producing strain by (A) providing nutrient medium consisting of sources of C, N, mineral salts, vitamins and water, provided that precursors of L-isoleucine and amino acids are absent; (B) cultivating the strain of Brevibacterium flavum UN11 Genetika 10-89 deposited under the number CMIM B-1507 in the medium under aerobic conditions until L-isoleucine is accumulated in an amt. of ≥17 g/l; and (C) recovering the accumulated L-isoleucine. Pref. the C source is glucose or sacchrose.
Prod. is used in nutritive mixts. for medical applications, an additive for foodstuff and reagent in pharmaceuti -cal and chemical industries. 22.6.78 as 917989 (4pp964).

GRAC D16 96238 X/52 =US 4237-229
Immobilized biological material - by mixing with a polyurethane prepolymer with terminal isocyanate groups and then cross-linking the components
GRACE W R CO 24.12.75-US-644025 (10.06.75-US-585674)
A96 B04 +P14 (02.12.80) *BE-842-769 C07g-07/02
Immobilisation of biological material selected from (a) protein, (b) coenzyme having ≥1 prim. or sec. amino gp. per molecule, (c) mixt. of the coenzyme and an enzime, and (d) antibiotic having ≥1 prim. or sec. amino gp., is described.
Method comprises (A) contacting the material and excess of isocyanate capped liq. polyurethane prepolymer in the absence of water, the prepolymer being reaction prod. of polyether polyol with sufficient polyisocyanate to provide ≥ 2 free NCO gps. per molecule; (B) shaping the resulting mixt. and (C) curing by contacting with curing agent to form cured shaped article comprising the immobilised biological material. Pref. the prepolymer is prepd. by reacting toluene diisocyanate and a polyethylene glycol. 9.11.77 as 849990 (22pp964).

DAIW D16 10899 B/06 =US 4237-230
Lactase useful for treatment of milk - prepd. by culturing Bacillus brevis LOB 377
DAIWA KASEI KK 31.05.77-JA-064347
(02.12.80) *J53148-591 +C12n-09/38
Lactose of mol. wt. $3x10^5$, optimum pH ~60, optimum temp. 60°C, and ≥1 of the ratio of activity for hydrolysing lactose to activity for hydrolysing o-nitrophenyl-B-D-galactopyranoside is new.
The lactase is produced by cultivating Bacillus circulans LOB 377 (ATCC 31382) and isolating the enzyme from the culture broth. Pref. cultivation is at 30-40°C for 12 hours to 5 days.
Prod. is useful for treating milk and milk prods. and for preventing diarrhoea due to lactose intolerance esp. in babies. 26.6.79 as 052444 (+8.3.78-US-884421) (9pp964).

UNVO ★ D16 92065 C/51 ★US 4237-231
Glucose isomerase purificn. - by acid treatment, then salt fractionation
UOP INC 13.11.79-US-093570
(D17) (02.12.80) C12n-09/92
Glucose isomerase (I) is purified as follows: (a) a (I) soln. is treated with acid (to pH 3.5-5) and proteinaceous solids are collected; (b) the solids are extracted with a buffer at pH 6-8; (c) the sepd. soln. is treated with a salt (to 40-50 % saturation); (d) the soln. is sepd. and treated with more salt (to 41-60% saturation) to ppte. purified (I).
Simple process effectively purifies (I) which is then suitable for use in preparing the immobilised form which in turn is used in the isomerisation of glucose to fructose. 13.11.79 as 093570 (5pp478).

NATA- D16 55547 A/31 =US 4237-232
Liquid culture medium free of insolubles - contg. growth promoting factors for microorganisms, used for culturing to produce food or refined prods

NATIONAL TAX ADMIN (KOKU- KIBU-) 02.09.76-JA-104235 (06.05.76-JA-050746)

*P13 (02.12.80) *J53029-978 C12n-01*

Fermentation medium for propagation of cells for use as food products comprises ingredients selected from ≥ 1 of sugars, polypeptone, amino acid and ions of K and P. The improvement is that the fermentation medium further com-prises a growth factor of mol. wt. 10^3-10^5 derived from distillers solubles by pretreatment with (1) centrifugal sepn. to degree of > 50,000 (g x minute); or (2) filtration with addn. of filter aid, followed by collection of liq. contg mol. wt. 10^3-10^5 by subjecting the obtd. clarified liq. to molecular sieve treatment.

Pref. the growth factor is dried, after collection, by spray drying, lyophilisation or air drying. 2.5.78 as 902225 (+26.1.77-US-762680)(+6.5.76(2), 17.6.76-JA-050747, 8, 070428) (16pp964).

KURE D16 10256 A/06 =US 4237-233
Cultivating Basidiomycetes - using initial charge below full capacity and adding more medium after foam subsidence

KUREHA KAGAKU KOGYO 30.08.76-JA-103380 (03.08.76-JA-093074)

*B04 +P13 (D13 D17) (02.12.80) *BE-857-440 C12n-01/14*

Basidiomycetes fungus is cultured in fermenter under aeration and agitation at 25° ± 2°C by using an aq. culture medium contg. a saccharide as C source and ≥1 nutrient source selected from yeast extract, peptone, casamino acid, and meat extract and being prone to foaming in initial stage of cultivation.

The improvement is that the initial charge of the culture medium is < 70% of the capacity of the fermenter, initially allowing the culture medium in the fermenter to foam. Additional charges of the culture medium on nutrient component are then added until ≥ 85% of the fermenters capacity is occupied by the aq. culture medium. Proviso is that each additional charge is supplied at a point in the course of cultivation when foaming has subsided.

Smooth and efficient cultivation of Basidiomycetes is provided. 26.7.77 as 819401 (5pp964).

MEUN/ D16 45501 C/26 =US 4237-234
Device for studying biochemical or enzymatic reactions - comprises plastics sheet sandwich defining internal reaction chambers

MEUNIER H E 30.10.78-US-955921

*J04 S03 (02.12.80) *GB2036-075 +C12m-01/20*

Appts. for studying biochemical or enzymatic reactions by living organisms comprises two plastic sheets sealed to each other, one having a central open area with upstanding walls to define a receptacle closed by the flat second sheet. Radial cavities provide individual reaction chambers with outward apertures having upwardly extended walls t vent escape of contents.

Chambers and receptacle communicate via capill and all chambers and capillaries are formed in the sheet. The chambers pref. contain colour reagents on absorbent sheets. The second sheet pref. has fo tions for locating the assembly on a horizontal centr 30.10.78 as 955921 (8pp1358).

TOXN D16 82813 B/46 =US 4
Carrier-bound di:sulphide cpds. of benzothiazole and p N/oxide - useful for producing e.g. immobilised enzy immune components

TOYO JOZO KK 28.12.78-JA-164909 (28.04.78-JA-049958)

*A96 B04 E13 (S03 U11) (02.12.80) *DT2917-001 C07d-513 C07d-519*

New disulphide cpds. of a carrier, having S-S excha reactivity, are of formula $R-S-S-X_1-X_2-A$ (I).

In (I), R is 2-benzothiazolyl (or 2-pyridyl-N-oxid is a spacer gp. directly bound to the -S-S- and comp C atoms in a straight or branched chain; X_2 is an imi or amide bonding gp.; and A is an insoluble carrier ected from beads gel agarose residue, γ-aminopro ed nylon beads residue or a residual gp. of partially duced polyacrylonitrile porous granules or fibres.

(I) have S-S exchange activity to combine the carr with a cpd. having a thiol gp., e.g. an enzyme such peroxidase or catalase. 30.4.79 as 034861 (11pp936)

IAVP D16 54811 B/30 =US 42
Recovering ergot alkaloid(s) from culture suspension - by fil drying mycelium in fluidised bed, then extraction

VEB ARZNEIMITTEL DR (DRED) 20.12.77-DL-202798

*B02 (02.12.80) *DT2840-670 C07d-519/02*

Ergot alkaloids are isolated from raw culture suspen by (1) stirring with absorbent clay selected from fulle earth, bentonite and bleaching earth, (2) mechanicall tering the suspension, (3) isolating a filtration resid cluding absorbent clay, (4) drying residue in fluidise ing bed at 80-90°C for 20-40 mins. until exhaust tem 50-70°C is achieved, (5) extracting with aprotic orga solvent, (6) extracting basic cpds. with weakly acidic soln., (7) treating weakly acidic soln. with base, (8) tracting with organic solvent which is immiscible wit water, and (9) isolating ergot alkaloids from water- immiscible solvent.

Process is economical for the isolation of all type ergot alkaloids in saprophytic cultures. 20.12.78 as 971219 (977).

See Also

D13 FR 2450567 D13 GB 1581541 D13 J5 5142
D13 SU 731938 D15 J5 5140151 D17 US 423

D17: SUGAR; STARCH

MERI ★ D17 90649 C/51 ★EP--20-096
Starch modified with xanthan gum - prepd. by gelatinising an aq. gum-starch mixt., then heat-drying the mixt.

MERCK & CO INC 25.05.79-US-042663

A11 (D13) (10.12.80) A23I-01/19 C13I-01/08

D/S: E(DT, FR, GB, IT, NL).

Xanthan gum (I)-modified starch with wt. ratio (I): precursor starch (II) = 1 : 1 - 100 is prepd. as follows: an aq. mixt. of (I) and (II) is heated at < 100° to gelatinise (II), and the mixt. is then dried at > 100° for ≥ 15 sec.

The prepd. modified starches have increased acid stability, are stable to heat and shearing, and have increased resistance to dissolution in aq. media. The prods. may be used in a wide variety of food, textile, and oil field applicns., etc.

22.5.80 as 301701 (33pp478).

(E) ISR: DT2738355; DT1940655; US4192900; J53099

1 Journal Reference.

ROHG ★ D17 90660 C/51 ★EP--
decationising aq. sugar solns. - by treatment with strong acid exchange resin, or mixed weak and cation and anion exc resins

ROHM & HAAS FRANCE (GESU-) 30.05.79-GB-018716

(10.12.80) C13d-03/14

D/S: E(BE, DT, FR, GB, IT, NL).

An aq. sugar (I) soln. is decationised by agitation with ion exchange resin (II) under batch conditions, the sol then sepd. from (II). (II) is (a) a strong acid cationic exchange resin in H+-form when the treatment is at 2 40°C and the contact time is > 20 min., or (b) a mixt

eak acid cation exchange resin in H+-form and an anion change resin when the treatment is at 20-90°C and the ntact time is ⩾90 min.

(I) solns. can be effectively decationised without the nventional cooling. No inversion occurs.

.5.80. as 301751 (13pp478).

) ISR: NL-146576; IT-641205; US2402960; FR1214170; 52578938; 3 Journal References.

OC- D17 66158 A/37 =J8 0046-218

ogenerating anion exchange resin used for purifying sugar syrup - contacting with hydrochloric acid soln. and sodium hydroxide-ntg. sodium chloride soln.

ITO-CHU SEITO KK 24.01.77-JA-006964

*(21.11.80) *J53091-089 C13d-03/14 +B01j-49*

nion exchange resin (I) is regenerated by contacting (I) ith HCl soln. (II) and NaOH-contg. NaCl soln. (III) at -40°C.

(I) is used for the purificn. of sugar syrup. Process emoves adsorbed inorganic impurities, such as magne-um and silica, and organic compounds, such as colour-g substances. The inorganic impurities are desorbed ffectively by (II) at >40°C and the organic cpds. by (III) 40°C. 24.1.77 as 006964 B01j-49/00, C13d-3/14 1.11.80) ITO-CHU SEITO KK (4pp)(J53091089)

RAI D17 14719 W/09 =J8 0046-716

lkali metal gluconate recovery - by spray-drying from ermentation liquors contg crystal growth

GRAIN PROCESSING CORP (GRPR) 08.08.73-US-386785

*E12 (E17) (26.11.80) *DT2437-848 C07c-59/10 +C12p-07/58*

lkali metal gluconate (I) prepn. takes place by spray-rying a soln. of (I) contg. 5-50 (20-30) vol.% crystals of) and separating dry (I). Pref. process is Na- or K luconate recovery from fermentation liquors obtd. by acterial fermentation of glucose to form gluconic acid nd its neutralisation to (I), with crystal growth formation (I)-contg. fermentation liquors.

Na- and K gluconate are useful as chelate- or complex-rmers for metal ions, esp. in alkaline solns. and are dustrially used in (i) bottle rinsing compsn., esp. for ilk- and non-alcoholic beverages, (ii) for removing rust nd boiler scale or cleaning boilers and heaters; (iii) reventing rust stains in paper- and textile prodn; (iv) as eansing soln. components in food factories; (v) cleaning etals before plating; lacquering or other coating process es. 26.6.74 as 072445 (clg. 8.8.73-US-386785) C12p-7/58 07c-59/05, (26.11.80) GRAIN PROCESSING CORP pp)(J50037721)

NI ★ D17 91474 C/51 ★SU-730-809

odn. of invert sugar for use in food or bee keeping - by heating gar syrup with organic acid and poly organo-siloxane modified h allyl-amine

LENINGRAD LENSOVET TECH 31.07.78-SU-650522

(30.04.80) A23l-01/09 C13k-03

odn of invert sugar includes hydrolysis of sucrose at elevated temp inthe presence of carboxylic acid, e. g. citric acid. The prod can be used for feeding bees or in confectionary or in non-alcoholic drinks mfr.

In order to increase the yield of the final prod and to prevent the formation of toxic by-products; the 75% sugar soln. contg. 0.3-3.0 g/kg organic acid is treated with 0.3-1.5 wt.% polyorganosiloxane modified with allylamine and then heated for 1 hr at 95-100°C. The mixt is then neutralised with ammonium bicarbonate to pH 4.6-5.0. The additive which is sepd and re-used prevents oxidn of sucrose hydrolysis prods.

Khankhodzhaeva, D. A., Reikhsfeld, V. O., Askarov, M. A., et al Bul. 16/30.4.80. 31.7.78. as650522(2pp938).

DOWC D17 82991 C/47 =US 4237-110

Recovery of hydrochloric acid from a cellulose hydrolysate - by extraction using a higher alcohol solvent

DOW CHEMICAL CO 30.04.79-US-034784

*E36 (02.12.80) *EP--18-621 C01b-07/08 C13k-01/04*

Sepn. and recovery of conc. HCl from crude prod. comprising conc. HCl and sugars produced by acid hydrolysis of cellulose-contg. material, is described. Method involves (1) contacting the crude prod. with organic solvent consisting of ⩾ 1 5-9C alcohol so that the solvent is enriched with the conc. HCl, (2) sepg. enriched solvent from the conc. HCl depleted crude prod., and (3) recovering conc. HCl from the solvent.

Pref. solvent is a 60-90wt.% 2-ethyl-1-hexanol-10-40 wt.% n-hexanol mixt., a 55-85wt. 2-ethyl-1-hexanol-15-45wt.% polyglycol ether mixt. having a distn. temp. > 175°C, or 100wt.% 2-ethyl-1-butanol.

Process operates under mild conditions and with relatively low energy requirements, produces high yields and uses known relatively inexpensive extn. agents. 30.4.79 as 034784 (11pp393).

DART-★ D17 92064 C/51 ★US 4237-226

Pretreatment of cellulose-contg. materials - with acid-brief heating, to enhance subsequent hydrolysis to sugars

DARTMOUTH COLLEGE 23.02.79-US-014474

E13 (D16) (02.12.80) C12p-07/18 C12r-01/88 C13k-01/02

Cellulosic materials (I) are pretreated as follows: (a) a slurry of (I) contg. an acid (as catalyst) is heated so that the cellulose structure of (I) is modified by the acid to a form which is significantly more susceptible to hydrolysis than untreated material; (b) the slurry is heated for long enough so that most of (I) is modified, but not so long that significant amts. of glucose are formed and/or significant recrystn. of the (I) structure occurs; and (c) the slurry is quenched to terminate the reaction.

Pretreatment enhances the subsequent acidic or enzyma-tic hydrolysis of (I) to sugars (esp. glucose) giving higher yields in reduced reaction times. 23.2.79 as 014474 (5pp).

See Also

D15 HU T019118 D16 J5 5111795 D16 US 4237231
D16 US 4237233

D18: SKINS; HIDES; LEATHER; TOBACCO

ERB D18 88578 C/50 =EP--19-846

dyes for simultaneous tanning and dyeing of leather - prepd. m diazotised aromatic cpd. and sulphonated tanning agent

BAYER AG 01.06.79-DT-922482

*E21 (10.12.80) *DT2922-482 C14c-03/18 D06p-03/32 +C09b-31 C09b-33 C09b-39*

S: E(CH, DT, FL, FR, GB, IT)

v tanning dyestuffs (I) are prepd. by coupling a diazotd aromatic cpd. (II) with a water-soluble tanning agent and opt. reacting the product with a heavy-metal salt. is a condensation product of (a) HCHO or an HCHO-easing cpd., (b) an opt. sulphonated aryl ether, naphtha-e, terphenyl and/or phenol/urea mixt. or a dihydroxy-diaryl sulphone, and (c) a sulphonating agent if component (b) is SO_3H-free.

(I) are esp. useful for after-tanning of chrome-tanned leather, giving a good tanning effect with uniform colouring, high colour intensity and good light and wash fastness.

21.5.80 as 102823 (28pp367)

(G) ISR: ———

FARB D18 00257 A/01 =GB 1581-678

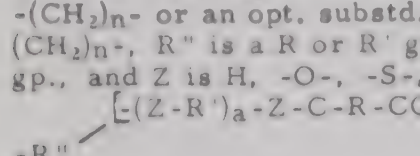
Tanning hides or leather - with carboxylic acids contg. ester, urethane or amide gps. and opt. chromium salts

BAYER AG 12.06.76-DT-626430

*A97 E19 (17.12.80) *DT2626-430 C14c-03/06*

Hides and/or leather are tanned and/or re-tanned with a tanning substance comprising ⩾1 Cr(III) salt and ⩾1 carboxylic acid contg. ester gps. having a mol. wt. of 170-30000 and formula XCOOH.

In the formula, X is $-[R-COZ-(R'Z)_a]_b-C-R-COOH$; $-R''-(Z-R')_a-[Z-C-R-COOH]$ or has formula (I), where a and b are 0-100, k and m are 0-6 and n is 0-20. R is $-(CH_2)_n-$ or an opt. substd. Ph, R' is $-(CH_2)_nC(CH_3)-$ or $(CH_2)_n-$, R'' is a R or R' gp., R'' is a polyhydric alcohol gp., and Z is H, -O-, -S-, -N- or $-CH_2OCH_3$.



(I)

The tanning substance comprises ⩾1 additional emulsifier and/or acid-binding agent, and is esp. used for chrome-tanning limed stock. 8.6.77 as 024034 (11pp931).

SHOE= ★ D18 91475 C/51 ★SU-730-810

Treatment of elastic footwear cow-hide - including aq. soda soaking and two/stage tanning, and ammonium sulphate treatment, softening and pickling with acetic or formic acids

SHOE IND RES INST (RIKO=) 10.06.77-SU-495568

(30.04.80) C14c-11

Elastic leather such as ox hide used for making footwear is treated by: soaking for 10-14 hrs in soln contg. 8.5-9.5 g/l calcined soda tanning; decalcifying by two-stage treatment with $(NH_4)_2SO_4$ soln with an intermediate rinse; softening with an enzyme treatment; pickling with acetic or formic acid at a concn of 3-6 g/l; and tanning. The method produces a high quality leather prod.

sed. It is then decalcified first in an $(NH_4)_2SO_4$ soln of concn 7g/l at 31°C for 15 mins, then rinsed at 31°C for 20 mins and then treated in second $(NH_4)_2SO_4$ soln. It is then softened with enzyme treatment, pickled with acetic acid of concn 3g/l and then tanned with chrome tanning agents.

Mikaelyan, I. I., Mogilevskii, A. I., Suchkov, V. G., et al Bul. 16/30. 4. 80. 10. 6. 77. as495568(3pp314).

MOLI= ★ D18 91521 C/51 ★SU-730-897

Wear-resistant fur prods. mfr. - by acrylamide grafting in aq. soln. in presence of redox system consisting of ascorbic acid, ferrous sulphate and hydrogen peroxide

MOSC LIGHT ENG INST 15.07.75-SU-170008

A97 (30.04.80) D06m-13/34

Link between thehair and the skin is strengthened by grafting acrylamide from an aq soln contg. a redox system consisting of 0.1-0.5g/l of ascorbic acid, 0.0001-0.0005 g/l of $FeSO_4$ and 0.03-0.09 g/l of H_2O_2. By this method, the wearing resistance of the fur is increased. The grafting can be promoted by irradiation(e. g. 10^6 rad).

Plysnina, L. P., Aronina, Yu. N., Baramboin, N. K., Bul. 16/30. 4. 80. 15. 7. 75. as170008(3pp70).

TABA- D18 11532 Y/07 =SU-731-879

Synthetic tobacco derived from vegetable matter slurry - which is thinned with 30 to 40 wt. percent of liquid extruded into strands and deformed into strips

FABRIK DE TABAK REU 29.07.75-LU-073096

*P15 (30.05.80) *DT2633-627 A24b-03/14*

The slurry is first treated with liquid by adding 30-40 wt. % liquid and then kneaded, subsequently extruded into strands which are pre-dried to a moisture content of 15-25 wt. %. The strands are then formed into strips which are set to synthetic tobacco by drying to a moisture content of from 6-18 wt. %. Energy input is reduc

Following extrusion the strands are cleaned by re moving proteins, chlorine and sodium ions by ion exch Pref. some of the bonding agents and adsorptives are added to the strands following their extrusion.

Beringer, M., Schperri, H., Bul. 16/30. 4. 80. 29. 7. 76. a 386957(2pp).

GALL- D18 22053 B/12 =US 423

Preparing wrappings for smoking prods., esp. cigarette pape serigraphic printing of spots contg. an additive

GALLAHER LTD 16.09.77-GB-038710

*A97 P15 (02.12.80) *BE-870-521 A24b-15/42 A24c-05/60 A 01/02*

A wrapper for a smoking rod is produced by screen p ing onto the surface of the wrapper a series of discret dots contg. an additive which comprises a smoke proc ing or nucleation agent, a flavouring agent and/or a ph -logically active agent.

The additive will be transferred and contribute to th main stream smoke drawn through the rod to enhance satisfaction to the smoker upon the approach of the hot burning tip of the smoking rod.

The additive esp. comprises nicotine components, a are esp. useful for low tar prods. contg. tobacco or tobacco substitute. 11. 9. 78 as 960996 (4pp934).

TKRT- D18 75563 C/43 =US 4236

Tobacco compsns. with reduced emission of toxic cpds. - co cpds. of gold, silver, platinum and cerium

TKR TABAK FORSCHNUG (DCLA/) 13.04.79-US-029857

*P15 (02.12.80) *DT2919-556 A24b-15/28*

Tobacco compsn. contains auric oxide, Ag nitrate or phate. $PtCl_4$ and Ce carbonate(s), sulphate(s) or nitrat The mixt. reduces the raw condensate nicotine and pol cyclic aromatic hydrocarbon content which are normal present in tobacco smoke.

The tobacco is suitably contacted with an aq. soln. the mixt. The soln. may be sprayed onto the cured or cured leaves. The tobacco compsn. may be used in pi cigarettes or cigars. 13. 4. 79 as 029857 (5pp945).

STOP- D18 25990 B/14 #US 4237

Pyridine di:carboxylic acid prepn. from di:methyl pyridine oxidn. with chromium salts and hydrolysis of intermediate form

STOPPANI L SPA 01.12.77-IT-030272 (30.11.78-US-965037)

*A41 E13 G06 (A60 E31) (02.12.80) *BE-872-394 +C07d-21*

2, 6-pyridinedicarboxylic acid is prepd. by the oxidatio 2, 6-dimethylpyridine in two stages.

The first step comprises reacting a soln. of 2, 6-di methyl-pyridine in 50-80wt. % H_2SO_4, with a soln. of h valent chromium contg. 40-65wt. % of CrO_3 to provide 10-100% stoichiometric excess, such that after oxidati 3-20 moles of free acid per mol. of prod. are formed. The second step comprises hydrolysing the intermedia molar addition cpd. formed with 5-15 times its dry wt of water at 100-50°C for 0.5-4 hrs. The concn. of Cr in the hydrolysis soln. is ⩽ 7wt. %, and cooling pptes. prod. which may be sepd. from soln.

The intermediate formed comprises 2, 6-pyridine di carboxylic acid, and chromic anhydride with the remo of 1 mol. of water, and is prepd. by introducing the re actants into an initial reaction foot over 2-3hrs., then allowing them to react for 3-0.5hrs., after which the prod. is cooled, then sepd. 30. 11. 78 as 965037 (4pp9

See Also

D23 SU 731951

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

D21 19251 W/12 =DS 2345-621
ine contg. softening compsns for waving hair - prevents undue
ge to hair
ENKEL KG AUF AKTIEN 10.09.73-DT-345621
*P24 (11.12.80) *BE-819-592 A61k-07/09*

reducing stage in a process for permanently waving
an hair is carried out with an agent contg., besides
softening cpds. (I) and usual additives, 1-10wt.%
tein obtd. by reducing to free thiol gps. the disulphide
of keratin in alkaline medium. Cpd. (I) is pref. the
nonium salt of thioglycolic acid and may be present in
mt. of 3-10wt.% (calculated as thioglycolic acid and
d on total wt. of the agent). The keratein helps to
vent damage to the hair. 10.9.73 as 345621 (4pp068).

W- ★ D21 90350 C/51 ★DT 2923-080
n. of solid cosmetic products - by mixing ingredients with
r, moulding and drying
CHWAN-STABILO SCHW 07.06.79-DT-923080
1.12.80) A61k-07

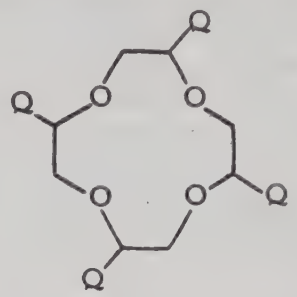
dn. of cosmetic products for skin care and/or decora-
, based on fats, emulsifiers, water-soluble binders
opt. fillers, is carried out by mixing the ingredients
sufficient H_2O to form a mouldable mass, cold-moul-
the mass (pref. in stick form), and removing suffi-
t H_2O to produce a solid structure.
The products are non-deformable solids with high me-
nical strength, a low H_2O content and good resistance
acterial contamination. When applied to moistened
n, they form a readily spreadable cream. 7.6.79.
923080 (10pp367)

N ★ D21 90464 C/51 ★DT 3020-649
nsparent detergent bars - contg. salt of basic amino acid and n-
ated acidic amino acid
AJINOMOTO CO INC 13.02.80-JA-015555 (31.05.79-JA-066788)
16 (D25) (11.12.80) C11d-01/10
nsparent detergent bars (or other shaped articles)
tain a salt (I) formed from a basic amino acid (II) and a
cylated optically active acidic amino acid (II) contg.
ng-chain acyl gp.
I) pref. comprises 1 mole of (III) and 1-2 moles of
(II) is pref. L- or D-lysine, -arginine or ornithine,
(III) is pref. a N-acylated L- or D-aspartic, -gluta-
, -cysteic or -homocysteic acid deriv. contg. an acyl
derived from a 10-20C satd. or unsatd. fatty acid.
s of transparency can be inhibited by adding urea,
. in an amt. such that the (I):urea wt. ratio is 95:5 to
0.
The bars are non-alkaline and non-irritant, have good
ning and detergency properties even in hard water,
impart a soft, smooth feel to the skin. 30.5.80 as
649 (28pp367).

A ★ D21 90499 C/51 ★DT 3021-447
ace-active fluorinated oligomers - comprising alkylene oxide
cts contg. fluorocarbon and solubilising gps.
OREAL SA 07.06.79-FR-014639
25 E16 (A96) (11.12.80) C07c-43/13 C07c-93/04 C07c-141/04
07c-143/02 C07c-147/14 C07c-149/20
omers with a statistical or blocks structure of formula
$((CH_2\text{-}CHY\text{-}O)_p\ (CH_2\text{-}CHZ\text{-}O)_q)\ H$ (I). In (I) R is
opt. branched-chain 2-18C hydrocarbon or fluorohy-
arbon radicals; Y is a 6-13C fluorocarbon or fluoro-
ocarbon radical opt. interrupted by O; Z is a solu-
ing gp.; p and q are 0.5-30. Intermediates of formula
$(CH_2\text{-}CHY\text{-}O)_p(CH_2\text{-}CHZ'\text{-}O)_q\ H$. (II) are also new. In
' is CH_2Cl, CH_2Br or CH_2OCMe_3.
pds. (I) are useful as surfactions in cosmetic
osns., esp. hair conditioners and shampoos. They
readily soluble or dispersible in water, have good oil-
llency properties, and are non-irritant to the skin
eyes. 6.6.80. as 021447 (40pp367)

OREA ★ D21 90506 C/51 ★EP---7-097
Surface active cyclic polyether derivs. - are 11-hydroxy-undecyl-thiomethyl derivs. of epihalohydrin tetramers of use in cosmetic, pharmaceutical, etc. industries
L'OREAL SA 13.07.78-FR-021081
A25 B03 E13 (A87 A97) (23.01.80) A61k-07/06 A61k-47 B01f-17/32 C07c-149/18 C07d-323 C11d-01
D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, OE, SW)

(A) Cyclic polyether surfactants of formula (I) are new:



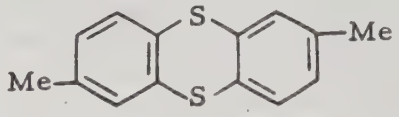
(I)

(Q is $CH_2S(CH_2)_{10}A$; and
A is a cationic, anionic, zwitterionic or nonionic hydrophilic residue which can have ⩾ 1, same or different, amine, ammonium, ammonioalkylcarboxylate, ammonioalkyl sulphonate, amide, sulphonamide, ether, thioether, OH, ester or acid gps.).

(I) effectively solubilise e.g. fat-soluble dyes, perfumes, pharmaceuticals or hydrocarbons at concns. below the critical micellar concn. of crown ethers having a single lipophilic chain. They are also less irritating to the skin and mucosa (esp. of the eyes) and have lower tendency to denature proteins. (I) are useful in cosmetics (esp. in shampoos and hair dyes), pharmaceutical formulations, and in the textile, dye and insecticide industries.
12.7.79 as 102399 (42pp1251)
(F) ISR: No relevant documents have been found.

FARB ★ D21 90531 C/51 ★EP--19-720
Antiparasitic, anti-seborrhoea, anti-pruritic compsn. - contg. 3,7-di:methyl-thianthrene and cosmetic additives
BAYER ITALIA SPA 28.05.79-IT-023050
B02 C02 (10.12.80) A61k-07/06 A61k-31/38
D/S: E(BE, DT, FR, GB, NL)

Compsn. active against parasites, seborrhoea and itches comprises mesulfen (i.e. 2,7-dimethyl-thianthrene) (I), together with conventional cosmetic additives and/or carriers.



(I)
(Derwent)

The compsns. can be used for treating scabies, pediculosis and pruritis in humans and animals. They are esp. useful for treating the hair and scalp, and may be formulated as shampoo, soaps and powders.

(I) is effective in low concns. (I) is a known anti-parasitic agent, but has previously only been used in pure (liquid) form or conc. (60%) ointment form, with problems of even application and undesirable odours.
25.4.80 as 102219 (8pp941)
(G) ISR:

PROC ★ D21 90592 C/51 ★EP--19-970
Conditioning shampoo compsn. - contg. anionic surfactant, satd. straight-chain fatty acid and water
PROCTER & GAMBLE CO 23.05.79-US-041656
E19 (10.12.80) A61k-07/08
D/S: E(BE, DT, FR, GB, IT, NL).

Conditioning shampoo contains 10-26% of a synthetic anionic surfactant (I), 1-3% of a 14-18C satd. straight-chain fatty acid (II) and water. The compsn. has pH 3-5.5

The combination conditioning-shampoo compsn. contg. (II) as conditioning agent rather than a soap has superior cleaning and conditioning properties.
19.5.80. as 200466 (13pp478).
(E) ISR: FR1568467; US3886277; CH-490853; FR1296934; DS1146996.

UNIL ★ D21 90605 C/51 ★EP--19-996
Multicoloured extruded detergent bar - formed by forcing base material through apertured place into converging zone with addn. of contrasting coloured material
UNILEVER LTD 06.04.79-GB-012142
(10.12.80) B29f-03/12 C11d-13/18
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW)

The base material of a detergent bar is extruded through an apertured plate to form rods which are compacted radially by passing through a convergent cone. A material of contrasting colour is discharged downstream of the plate but prior to compacting to fill the interstices between the rods to form a multi-coloured prod. Some of the rods formed near the periphery of the plate have flanges which extend radially and contact the sides of the convergent cone throughout its length. The flanges constrain the flow of the contrasting material and prevent it from coating the entire external surface of the extruded product.

Detergent bars are cut from the extruded product. The bars have integral stripes of a contrasting colour which are visible on the surface of the bar.

3.4.80 as 301067 (15pp295)
(E) ISR: GB1387567; FR2345515; US3676538; FR2233395 US3923438.

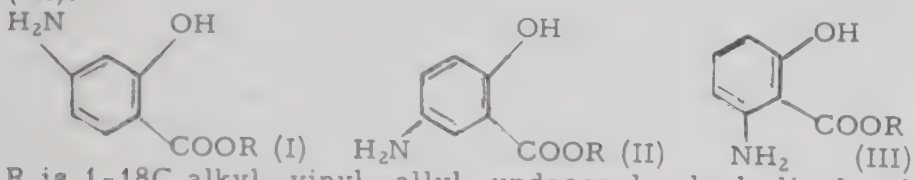
FABR ★ D21 90716 C/51 ★EP--20-274
Natural dye for hair extracted from Curcumas species - giving yellow, beige or chestnut shades
FABRE P SA 31.05.79-FR-013970
E24 (10.12.80) A61k-07/13
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

A natural dye extracted from plants of the genus Curcumas is new. The dye consists of curcumin and its demethoxy and bi-demethoxy derivs. It is pref. prepd. by extracting the underground parts of the species longa, aromatica, angustifolia, amada, cassia, domestica, xanthorrhiza, zedoaria or colorata.

The dye is useful for dyeing hair, opt. together with other natural dyes or small amts. of metal (esp. Fe) salts to change the yellow colour to beige or chestnut. The dye also has antiinflammatory and antibacterial activity.

30.5.80. as 400774 (9pp1251).
(F) ISR: DS-700765; J49071151; 8 Journal References.

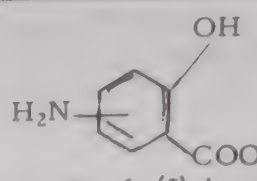
MUND D21 72936 A/41 #GB 1581-443
Amino-salicylate ester cpds. active against UV radiation skin damage - used in anti-sunburn compsns., have alkyl, alkenyl, phenyl, menthyl or cyclohexyl substits. (PT 22.3.78)
MUNDIPHARMA AG 24.03.77-PT-066344
*E14 (17.12.80) *DT2712-934 C07c-101/74*
Novel aminosalicylic acid esters are of formula (I), (II) or (III):



R is 1-18C alkyl, vinyl, allyl, undecenyl, oleyl, linolenyl, phenyl, cyclohexyl or menthyl. In (I) R is not phenyl, cyclohexyl, 1-4C alkyl, hexyl or decyl and in (II) R is not 1-4C alkyl. Specifically claimed cpds. include vinyl-para-aminosalicylate.

Cpds. are used in sun-screening compsns. as they absorb the radiation that causes burning but not that which causes tanning. 29.3.77 as 013096 (5pp974).

MUND D21 72936 A/41 #GB 1581-444
Amino-salicylate ester cpds. active against UV radiation skin damage - used in anti-sunburn compsns., have alkyl, alkenyl, phenyl, menthyl or cyclohexyl substits. (PT 22.3.78)
MUNDIPHARMA AG 24.03.77-PT-066344
*E14 (17.12.80) *DT2712-934 A61k-07/44*
A compsn. for topical application which is not a simple soln. comprises a pharmaceutically acceptable carrier and an aminosalicylate cpd. of formula (I):

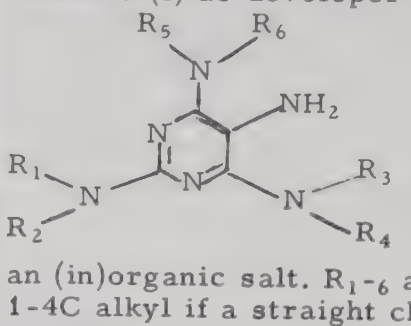


in which the NH_2 gp. may be eit
o-, p- or n-substd., and R is a
C alkyl, a vinyl, allyl, undecen
oleyl, linolenyl, Ph, cyclohexyl
menthyl gp.

Pref. (I) is present in the compsn. in amt. 0.5-25
and is phenyl-meta-aminosalicylate or menthyl para-
aminosalicylate. The carrier may comprise a lotion
vehicle, an ointment base carrier or a solid wax-stic
carrier.

The prod. is esp. used to prevent solar burning in
human or animal by applying the compsn. to the skin
fore exposure. 29.3.77 as 017533/79 Div. ex 1581443
(11pp931).

HENK D21 02007 A/02 =GB 15
(4)-Alkoxy-(5)-alkyl (meta)-phenylene-diamines - useful as couplers for hair dyes
HENKEL KG AUF AKTIEN 28.06.76-DT-628999
*E14 (17.12.80) *BE-856-145 A61k-07/13 C07c-93/14 + 79/35*
Hair dye compsn. comprises a tetraminopyrimidine o
formula (I) as developer

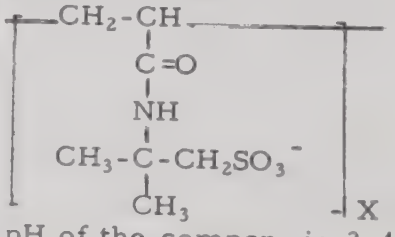


(I)

and a 3,5-diamino alkyl
ene as coupler, (substd.
the 2 position with -OR8
alkyl substit. is n- or is
1-8C alkyl chain. R8 is
iso-(1-8C)alkyl or pheny
substd. by ⩾1 1-4C alkyl
⩾1 halo,) opt. in the fori
an (in)organic salt. R_1-6 are independently H, benzyl c
1-4C alkyl if a straight chain opt. terminated by OH, h
NH_2, NHR' or NR''R'. R' and R'' are independently 1-4
alkyl or together with their common N atom and opt. v
an O or further N atom form a 5 or 6 membered heter
cylic ring. (I) may be in the form of an (in)organic sal

Compsns. are oxidn. dyes giving very fast intense c
ours. 24.6.77 as 026498 (8pp965).

HENK D21 03978 A/02 =GB 158
Lubricant compsn. for personal care products - comprises polyr (2)-acrylamido-(2)-methyl propane sulphonate salt and monol alcohol
HENKEL CORP (GENM) 16.02.77-US-769353
*A96 E17 +P34 (A14) (17.12.80) *US4065-422 A61k-07 28/02 C11d-03/37*
A compsn. suitable for application to the human body c
prises 0.01-50 wt.% of a polymeric salt which includes
peating units of formula (I), and 1-99.99 wt.% of a mon
hydric alcohol.



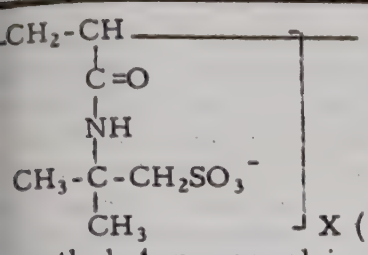
(I)

In the formula, X is such
the mol. wt. of the anion is
1000000-5000000.

Pref. the monohydric a
hol is an opt. mixt. of Me,
Pr, isopropyl, lauryl, my
yl, cetyl or stearyl, and t
pH of the compsn. is 3-10. The compsn. may also cont
1-90 wt.% of water in wt. ratio polymeric salt : monohy
alcohol : water of 1:5:80 to 1:80:5.

The compsn. is used as a personal care prod. whic
imparts a feel of lubricity to the contacted substrate.
15.2.78 as 000604 (6pp931).

HENK D21 40427 A/23 =GB 158
Lubricating keratinous substrates esp. skin and hair - using poly of 2-acrylamido 2-methyl propane sulphonic acid
HENKEL CORP (GENM) 16.02.77-US-769354
*A96 +P34 (17.12.80) *BE-863-466 A61k-07 C11d-03/37*
Lubricity is imparted to a surface of the human body b
contacting with an effective amt. of a polymeric salt w
includes repeating units of formula (I):



where X is such that the mol. wt. of the anionic portion of the polymer is 1000000-5000000.

Pref. the pH of the polymer is 3-10, and the cation of the salt is Na, K, NH_4, mono-, di- or triethanolamine, or 2-amino-2-methyl-1-propanol in opt. mixt.

The compsn. prepd. is pref. used to soften or lubricate the skin and hair, esp. conferring sheen and manageability to the hair. 15.2.78 as 006048 (5pp931).

OLG ★ D21 90794 C/51 ★GB 2048-667

Periodontal dental prepn. contg. folic acid to reduce inflammation - with di:calcium phosphate polishing agent

COLGATE PALMOLIVE CO 15.05.79-GB-016873

B05 (17.12.80) A61k-07/16

Periodontal dental prepn. comprises folic acid (I) and dicalcium phosphate (II) as polishing agent. The prepn. is pref. a dental cream of pH 4-10 and usually contains 0.01-5% (I) and 20-75% (II), which is used as anhydrous or dihydrate salt. The prepn. may also contain NaF or Na monofluorophosphate to provide 0.01-1% F.

(II) permits high retention of soluble (I) in the prepn. The (I) is directly absorbed by the gingiva to reduce gingival inflammation. 15.5.79 as 016873 (4pp1248).

COLG ★ D21 90795 C/51 ★GB 2048-668

Antiinflammatory periodontal dental prepn. contg. folic acid - with polishing agent and fluoride or mono:fluoro phosphate

COLGATE PALMOLIVE CO 15.05.79-GB-016874

B05 (17.12.80) A61k-07/18

Periodontal dental prepn. comprises folic acid (I), a water-insol. polishing agent (II) and an alkali metal fluoride (III) and/or alkali metal monofluorophosphate (IV).

The prepn.is pref. a dental cream or gel at pH 4-10. Suitably 0.01-5% (I) is present, with 10-75% (II) e.g. Na aluminosilicate, hydrated alumina, $CaCO_3$ and/or Na metaphosphate. The prepn. may contain NaF or Na monofluorophosphate to provide 0.01-1% F.

(II) is selected to reduce soluble (I) in the prepn. and (II) and/or (IV) increases retention of soluble (I). The (I) is directly absorbed by the gingiva to reduce gingival inflammation. 15.5.79 as 16874 (6pp1248).

ITS ★ D21 91001 C/51 ★J5 5140-756

Calcium phosphate based ceramic material - prepd. by sintering powder contg. phosphate base, e.g. apatite, phosphate frit and opt. yttrium oxide

NGK SPARK PLUG KK 16.04.79-JA-046500

L02 P32 (04.11.80) A61c-08 A61f-01 C04b-35

Powdered material comprising phosphate of calcium (pref. apatite and/or tert.-calcium phosphate. (Ca/P atomic ration is 1.4-1.75) is mixed with 0.5-15 wt.% (on sintered calcium phosphate) of phosphate frit and opt. 0.01-23 wt.% (on sintered calcium phosphate) of Y_2O_3, and sintered.

Phosphate frit: (over 90 mol.%) is composed of 40-75 mol.% of P_2O_5 and 20-55 mol.% (pref. 25-54 mol.%) of at least one of BaO (0-55 mol.%),)-55 mol.%), MgO (0-20 mol.%), ZnO (0-20 mol.%) and K_2O (0-20 mol.%).

It is useful for the bioceramic material (e.g. substitute for bone and tooth), material of base plate of IC package, etc.

It has high strength (e.g. bending strength is above 2000 kg/cm^2), and high density. It has 120-140. $10^{-7}°C^{-1}$ expansion coefft. and can be utilised for the material of combination parts of metallic appliances(e.g. fixer of magnetic head of VTR), expansive sealing material, enamelling material, etc. 16.4.79 as 046500 (5pp170)

II- ★ D21 91106 C/51 ★J5 5141-405

Prepn. of microcapsules contg. soln. of placenta extract - where alkaline phosphatase is used as core material and polyamide is used as membrane material, for cosmetics

CHIMARU BOEKI KK 23.04.79-JA-050081

A96 (05.11.80) A61k-07

The prepn. of microcapsule consisting of soln. of placenta extract which contains alkaline phosphatase as the core material and polyamide as the membrane material, the soln. of placenta extract is previously mixed with 1-10% of aminoacid. When the microcapsule obtd. is incorporated into a cosmetic compsn., the placenta extract component can remain in active state for a long period of time.

The aminoacid to be mixed with the soln. includes glycine in an amt. of 1-10%, alanine in 1-10%, pref. about 7%, glycyl-glycine in an amt. of 1-10%, pref. 3-5% glycyl-glycyl-glycine in an amt. of 1-10%, pref. 3-5%. 23.4.79 as 050081 (6pp22)

POKK D21 69888 Y/39 =J8 0046-366

Cosmetics contg. glossy mica pigment - prepd. by sintering fine mica powder and fine metal oxide

POLA KASEI KOGYO KK 12.02.76-JA-014310

*A96 E37 G01 (22.11.80) *J52099-234 A61k-07/02*

The glossy mica pigment is pref. coated with a soln. contg. water-insoluble resin, alcohol-soluble resin and water-insoluble fibre, to give a very high gloss.

The mica pigments are free of toxicity and stimulus to skin and are easily crushed. They do not segregate or show a spectrum and transparent and can be coloured by combining with metal oxide.

Pref. metal oxide is red oxide, Cr oxide, Mn dioxide, Fe black, Co oxide, Cu oxide, Ni oxide, W oxide, etc. in a mica:metal oxide ratio of 9.7:0.3-6:4. The mixt. is sintered at 300-2000°C under normal pressure of 100-900 atoms. for 1-24 hrs. The obtd. sintered prod. has e.g. the structure K_2O-X-$3Al_2O_3$-X-$6SiO_2$ (where X is the metal oxide). 12.2.76 as 014310 A61k-7/021 (22.11.80) POLA KASEI KOGYO KK (4pp)(J52099234)

ISEH- D21 59472 A/33 =J8 0046-367

Cosmetic contg. animal protein fixed carthamine pigment - obtd. by dissolving carthamine in aq. alkali soln. adding animal protein and fixing with organic acid

ISEHAN HONTEN KK 24.12.76-JA-154915

*E24 (22.11.80) *J53079-041 A61k-07/02*

Cosmetics are combined with the carthamine pigment, which is obtd. by dissolving carthamine in aq. alkali soln., adding the soln. to the powder of animal protein and fixing solubilising with organic acid.

Carthamine pigment has excellent colour and thermal resistance and is easy to handle and is not discoloured or faded by sunlight, artificial light to heat in aq. or oily dispersion. Colour of the carthamine pigment can be readily changed from yellowish red to bluish red by choice of animal protein and the type and amt. of organic acid applied. The carthamine pigment is insoluble in water and solvents and it is not dissolved out by sweat, etc. 24.12.76 as 154915 A61k-7/021, (22.11.80) ISEHAN HONTEN KK (4pp)(J53079041)

TSIL D21 23922 A/13 =J8 0046-416

(N)-Acylamino acid-modified polysiloxane - useful in detergents, toiletries and cosmetics

TOSHIBA SILICONE KK 13.06.74-JA-067522

*A26 (A96 A97 D25) (22.11.80) *J50158-700 +C08g-77/40*

N-acyl amino acid salts and organopolysiloxanes contg. halogenated alkyl gps. are reacted in non-protonic polar solvents. The polymers obtd. are non-toxic and useful for detergents, toiletries, and cosmetics.

In an example, N-hardened tallow fatty acid acyl-DL-valine 75.6, NaOH 8, and DMF 160 g were stirred for 1 hr at 80.°, mixed dropwise with 23.1 g 1,3-bischloromethylethyltetramethyldisiloxane and 29.7 g octamethylcyclotetrasiloxane, and stirred for 8 hr. at 120° to give 65% prod. which was used for mfg. hand creams. 13.6.74 as 067522 C08g-77/40, (22.11.80) TOSHIBA SILICONE KK (8pp)(J50158700)

SUMO D21 22545 A/12 =J8 0046-731
Baked ceramic-metal material for crowning teeth - has a flame-coated layer of zirconium oxide and opt. aluminium oxide between metal and ceramic
SUMITOMO CHEMICAL KK 19.07.76-JA-086252
*L02 P32 P73 (26.11.80) *J53013-590 A61c-05/10 +A61c-13/08*

The crown is made of a complex body including a metal crown (e.g. Co-Cr alloy, Co-Cr-Ni alloy, Ni-Cr alloy, Fe-Co-Cr-Ni alloy, or Au alloy); a flame coating layer consisting of zirconium oxide and opt. aluminium oxide, and a baked ceramic contg. e.g. SiO_2, Al_2O_3, CaO, K_2O, Na_2O, ZrO_2, TiO_2, BaO, or SnO_2.

The ceramic material has excellent hardness and good chemical stability and thermal insulation. Its fragility under tension or shear is avoided using metal. The flame coating layer shields the metallic colour of the metal to give a naturally-coloured artifical tooth. 19.7.76 as 086252 A61c-5/10, 13/08, (26.11.80) SUMITOMO CHEMICAL KK (6pp)(J53013590)

AUTH= ★ D21 91619 C/51 ★SU-731-941
Closing device for openings of ovens, furnaces, etc. - has double layer curtain with individual balls along lower edge which slide on the article surfaces
AS UKR THERM PHYS 08.12.78-SU-692885
J09 (05.05.80) A21b-03/03

Closing device is used for the loading hatch of heat-exchanging appts. e.g. equipment for heat-treating articles having complex geometrical shape, deformed surfaces etc which are loaded into bread-baking ovens, roasters, tempering furnaces etc. It consists of double-layer flexible curtain, the lower part of which contains a stretching attachment. The tightness of the closure is increased by making the stretching attachment as individual balls with the lower edges of the curtain connecting them together.

Borovskii, V. R., Shulgin, I. M., Shubenko, B. P., Bul. 17/5.5.80. 8.12.78. as692885(3pp29).

DENT- D21 65437 A/37 =US 4236-922
Alloy with high definition for making dental models - based on bismuth and tin, with antimony and/or silver
DENTAIRE IVOCLAR 22.03.77-DT-712517
*M26 P32 (02.12.80) *DS2712-517 +C22c-33*

Dental alloy comprises 30-74wt.% Bi, 19-69.9wt.% Sn and either (A) 0.1-5wt.% Ag or (B) 0.1-7wt.% in total of Ag+Sb provided that there is ⩽ 5wt.% Ag. The alloy may also contain 0.1-1wt.% Cu in which case the total of Cu+Ag+Sb is ⩽ 5wt.% (where Sb is not present (A)) or ⩽ 7wt.% (where Sb is present (B)).

The alloys have improved hardness but are not brittle. They are easily removed from impression materials, in the mfr. of dentures and when sprayed on in layers, the individual layers adhere well to each other and to a lining material. 16.3.78 as 974658 (5pp945).

JOHN- ★ D21 92019 C/51 ★US 4237-112
Non settling hair and scalp conditioner contg. sulphur - contains hectorite clay modified with e.g. propylene carbonate and organic liq. to prevent phase sepn.
JOHNSON PROD CO 25.05.79-US-042720
B05 (02.12.80) A61k-07/06 A61k-33/04

An anhydrous medicated scalp and hair conditioner contains 50-94wt.% petrolatum, 0.5-5wt.% mineral wax, at least 0.5wt.% polyoxyethylene (γ)dilaurate (I), about 0.2.25wt.% S, and 1-30wt.% of a modified hectorite gell Hectorite is modified with propylene carbonate, stearalkonium chloride or dimethyl di(hydrogenated tallow) ammonium chloride, and an organic liq. selected from mineral oil, castor oil, isopropyl myristate, isopropyl palmitate, a mixt. of lanolin oil and isopropyl palmitat or a mixt. of propylene glycol dicaprylate and propyler glycol dicaprate. 25.5.79 as 042720 (6pp955).

FARH D21 61669 B/34 =US 4237
Thickening cosmetic, pharmaceutical compsns. etc. - crosslinked saponified polyacrylamide polymer (BE 14.8.79)
HOECHST AG 14.02.78-DT-806098
*A96 B07 (A14) (02.12.80) *DT2806-098 C08f-08/12*

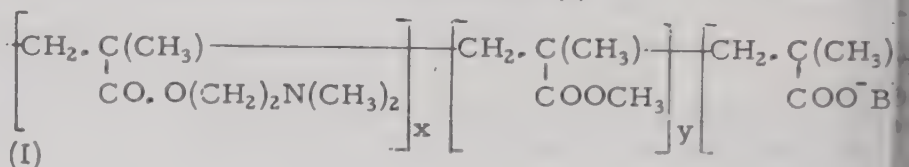
Novel cosmetic, pharmaceutical etc. compsns. have, their thickening agent, a crosslinked polymer (I). The polymer chains of (I) contain (k-p) mole % -$-CH_2-CH(CONHR_1)-$-, p mole % $-CH_2-CH(COOM)-$ and 0 mole % $-CHR_2-CXR_3-$ units and are crosslinked by 0.1 mole % of a crosslinking agent.

R_1 is H and/or CH_2OH in any ratio. R_2 and R_3 are b H or one is CH_3. X is CN, 1-8C (hydroxy)alkoxycarbon 2-6C alkanoyloxy, 2-8C alkanoylamino (opt. cyclized to pyrrolidone or caprolactam), phenyl, carboxyl or tri(m ethoxysilyl. M is alkali metal. k is 99.9-50 and p ⩾

(I) are obtd. by (i) copolymerising k mole % acrylam with 0-45 mole % $CHR_2:CXR_3$ and 0.1-20 mole % cross-linking agent in the presence of a radical initiator in a water-miscible alkanol soln., (ii) shearing until unifor suspension flow behaviour is achieved, (iii) mixing with strong shearing forces with p mole % MOH, (iv) heating to saponify and (v) isolating or (vi) methylolating the pr after removing ammonia with O-(k-p) mole % paraform aldehyde. 9.2.79 as 010519 (10pp974).

OREA D21 76295 A/43 =US 4237
Methacrylate based copolymers - for use in cosmetic compsns. lacquers and setting lotions
L'OREAL SA 14.03.78-FR-007308 (21.04.77-FR-012048)
*A14 (A96) (02.12.80) *BE-866-174 C08f-220/36 +C08f-02 C 04/04*

Novel copolymers are of formula (I)



(I)

B is Na, K, NH_4, NHR_1R_2XOH or 2-amino-2-methylpro -1-al. R_1 and R_2 are each H or XOH. X is 1-3C (bran (hydroxy) alkylene. M is ⩾ 1 unsatd. (meth)acrylamid N-substd. by (branched)alkyl, or a (meth)acrylate of monoalkyl ether of (poly)ethylene glycol, or N-vinylpyr -done. x is 22-64 mole %, y is 13-71 mole %, z is 6-2 mole % and v is 0-22 mole %.

Copolymers are used in hair lacquers and waving lotions. They do not have strong hydroscopicity and he do not cause glueing. 18.4.78 as 897435 (8pp974).

See Also

D15 DS 2630768 D16 EP --20097 D23 J8 00466

D22: BANDAGES; DRESSINGS

KEND ★ D22 90176 C/51 ★BE-884-705
Sleeve applying pressure to leg of patient - is divided into inflatable chambers each with air supply line which are connected via detachable coupling to regulator
KENDALL CO 09.08.79-US-065392
P33 (01.12.80) A61h

The pressure sleeve is wound around the patients leg to apply pressure to the required area. The sleeve comprises an array of longitudinal chambers each with a respective air supply line. The supply lines are connecte to a regulator which inflates and deflates the chambers cyclically.

The set of air pipes have a detachable coupling which divide the pipes into an upstream section coupled to the

ılator and a downstream section coupled to the sleeve. coupling comprises a housing with an apertured lat- l plate through which the ends of the pipes are re- ved. 8.8.80 as 884705 (26pp958)

CK/ ★ D22 90226 C/51 ★DT 2901-679

ter bandage cutting device - with saw blade movable inside bedded flexible strip

BOCK K 17.01.79-DT-901679

P32 *(11.12.80) A61f-15/02*

levice to cut open circular bandages of cast plaster sists of a flexible strip with a hollow channel in tne tre and tapering sides. A flexible saw blade is intro- ed in the channel and stands out sufficiently at both ls to be reciprocated through he knobs at the ends. The xible strip is laid into the plaster cast over the full gth which is to be cut open.

This is a simple low-cost device which facilitates the moval of plaster bandages and removes the risk of in- ies. 17.1.79. as 901679 (32pp39)

RS/ ★ D22 90261 C/51 ★DT 2921-716

v pressure mercury lamp for reactions etc. - having flat profile h electrodes at either end for max. radiation efficiency

HORSTMANN G 29.05.79-DT-921716

J04 L03 X26 (D13 D15) (11.12.80) A23c-03/08 A23l-03/28 B01j-19/08 C02f-01/48 C12h-01/16 H01j-61/33

w pressure Hg vapour lamp has an elongated flat pro- e which is filled with Hg vapour. The lamp has elec- odes at either end. The flat surfaces of the lamp can be ade from materials with different permeability to radia- n.

The lamp can be enclosed in a housing with provision a colling medium. Flow passages for such a medium be incorporated down the edges of the lamp. O_2 taining gas can be passed across the face of the lamp m a tube on one side to one on the other, causing O_3 rmation.

Used esp. for carrying out reactions in gas streams e.g. formation or sterilising streams etc. Gives improved ergy utilisation by reducing the amount of energy con- rted to heat, with higher radiation densities more sui- to reactors. 29.5.79. as 921716 (26pp1053)

TT/ ★ D22 90296 C/51 ★DT 2922-347

timicrobial surface treatment of materials - by covalent coupling h antimicrobial agent

HUTTINGER K J 01.06.79-DT-922347

E19 F06 X25 P42 P63 (F09) (11.12.80) A01n-01 A01n-03 B05b-05 B05b-07/06 B27k-03 D21h-03

odn. of prods. with antimicrobial properties is rried out by treating with a cpd. (I) which has an anti- crobial fragment and ⩾1 reactive gp. capable of reac- g with surface gps. on the material being treated to m covalent bonds.

Process can be used to impart antimicrobial proper- s to fibres, fabrics, air filters, membranes, conta- rs, packaging materials for use in the foodstuffs and rmaceutical industries, etc., and for protecting tex- s, wooden structures, electronic and engineering mponents, etc., from microbial attack. 1.6.79. as 347 (11pp367)

RH ★ D22 90370 C/51 ★DT 2923-435

ellable crosslinked PVA ether prodn. with limited water solubility eful for absorption and retention of aq. fluid, e.g. in baby care, pons, and medical and hospital applications

HOECHST AG 09.06.79-DT-923435

A14 F06 (A96) (11.12.80) C08f-08

odn. of swellable crosslinked ethers (I) of PVA, which over 40 wt.% insol. in water, involves etherification PVA and previous, simultaneous or subsequent cross- xing with reactive crosslinking agents which are at st bifunctional towards the OH gps. of the (etherified) A in aq. alkaline medium, opt. contg. an organic vent. The amts. used are 0.1-0.8 (0.25-0.5) mole ali hydroxide, 0.5-5.0 (0.7-3.0) mole water, 0.001- 05 (0.002-0.02) mole crosslinking agent and 0.01-1.0 (0.1-0.4) mole etherifying agent per mole PVA and opt. 0.01-1.0 pts. organic solvent per wt. pt. PVA

(I) are specified for use as absorbents and/or retainers for aq. liqs or moisture.

Cpds. are useful for increasing the water vapour absorption and/or permeability of artificial leather and textiles, esp. for shoes, leather goods, upholstery covers, clothing, household textiles, tenting and tarpaulins. 9.6.79. as 923435 (19pp016)

TOYJ ★ D22 90438 C/51 ★DT 3020-235

Calcium hypochlorite compsn. - stabilised with free calcium hydroxide, useful for sterilising swimming pool water

TOYO SODA MFG KK 17.07.79-JA-089777 (29.05.79-JA-065554)

E33 (D15) (11.12.80) C01f-11

Stable $Ca(ClO)_2$ compsn., based on $Ca(ClO)_2$ and/or $Ca(ClO)_2.2H_2O$, contains min. 60 (wt.)% $Ca(ClO)_2$, min. 5 (6-8)% $Ca(OH)_2$ (in free form), min. 4(7-22)% H_2O and max. $CaCl_2$.

The compsn. is used mainly for sterilising swimming pool water. Since this is done mainly in summer, the temp. during transport and storage can exceed 40°C when decompsn. is usually rapid, esp. as the H_2O content increases. The addn. of $Ca(OH)_2$ greatly increases the stability. 28.5.80. as 030235 (33pp016)

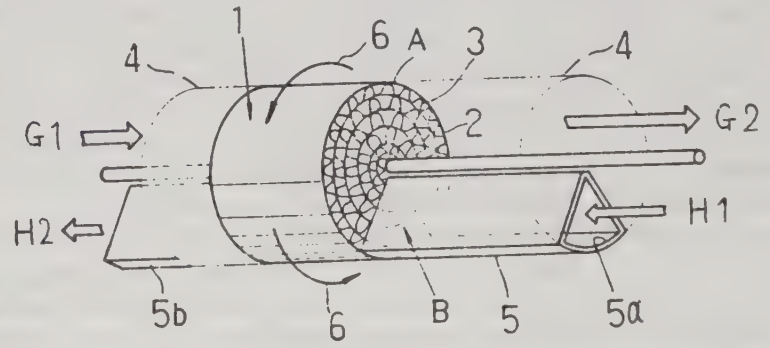
DAIK ★ D22 90462 C/51 ★DT 3020-647

Drying and deodorising plant, esp. for moist gas or air - using coil of corrugated paper impregnated with active carbon and/or lithium chloride

DAIKIN KOGYO CO LTD 25.09.79-JA-V33059 (31.05.79-JA-068062)

J01 (11.12.80) B01d-53/26

The device includes a wound spiral coil of corrugated paper forming a honeycomb of parallel gas channels. At



least one side of the paper is coated with a water absorbent, which is pref. active carbon or LiCl. The coil is rotated so that one zone (A) can be used for drying and deodorising a gas while the other zone (B) of the coil is heated for regeneration of the absorbent. The absorbent is pref. deposited on the entire surface of the paper.

High efficiency is obtd. where part (B) of the coil can be regenerated while the remainder is being used, so there is no need to remove the coil for regeneration. 30.5.80. as 020647 (17pp1144)

USSU ★ D22 90473 C/51 ★DT 3020-952

Surgical clamping staple rods - bonded with biologically harmless polymer films, degraded and absorbed in the body

US SURGICAL CORP 04.06.79-US-045289

A96 P31 (11.12.80) A61b-17/08

The rod is composed of a series of clamping staples bonded together in parallel by a film of a non-toxic substance, which is pref. a synthetic polymer. The substance is biologically degraded and absorbed in the body.

The polymer is pref. a copolymer of 90% polylactic acid and 10% polyglycolic acid, and it applied as a 1pt. soln. in 6 pt. dioxane. Pref. the D, L-polylactic acid is, the a-acid, however, being partic. suitable. 3.6.80. as 020952 (16pp004)

BRIM ★ D22 90498 C/51 ★DT 3021-443

Knuckle joint prosthesis for middle hand bones - has enlarged middle section of silicone rubber higher than it is wide

BRISTOL MYERS CO 07.06.79-US-046297

A96 P32 (11.12.80) A61f-01/03

A body of a flexible, physiologically-inert material such as a silicone rubber, forms a prosthesis for a bone joint. The body has an enlarged middle section, with outwards pointing, proximal and distal pegs. These are designed for insertion into the marrow channel of the bones forming the joint.

The height of the middle section is the same as or greater than its breadth. A slit runs through the middle section from the distal to the proximal end, at an angle of 55/60°, so that a joint is formed which is offset from the centre of the middle section to its proximal end.

The design of the prosthesis prevents the growth of tissue into it, which results in a swan's neck formation and premature breakage, since a ledge is formed. Turning of the prosthesis is also prevented. 6.6.80. as 021443 (9pp1045)

STIL D22 22368 B/12 =EP G001-048

Disinfecting hospital operating theatres and other rooms - by connecting air conditioning plant for closed circuit operation and feeding disinfectant into air duct

STIERLEN-MAQUET AG 09.09.77-DT-740738

*Q74 (10.12.80) *EP---1-048 F24f-03/16*

D/S: E(BE, CH, DT, FR, GB, LU, NL, SW)

A disinfectant substance pref. surfactant such as formaldehyde is used for disinfecting an operating theatre, and possibly an ancillary chamber in a clinic air-conditioned by the same installation. This is connected to the outside air by a suction and a vent pipe, and to the theatre and the other chamber by inlet and outlet ducts. Both the suction and the vent ducts can be sealed against the outside, and the air conditioning plant is then operated in a closed circuit, with the disinfectant being introduced downstream to the pressure side filter in the inlet duct which is preceded by a fan and an suction side filter. During disinfection, the pressure side of the outlet duct is connected into the feed channel upstream to the suction side filter of the fan.

The conditioning plant maintains the rooms at a temp. and a humidity favourable to the action of the disinfectant, and the arrangement ensures that the inlets of the condition -ing ducts also are sterilised adequately in a simple and positive manner. 3.8.78 as 100593 (23pp1014) (G).

SUGR D22 68495 B/38 =EP G004-211

Prepn. of 2-nitro-2-methyl-propanol from 2-nitro propane - with formaldehyde, added as polyoxymethylene, in conc. reaction medium

SOC CHIM GRANDE PAROISSE 15.02.78-FR-004210

*A25 E16 (10.12.80) *EP---4-211 C07c-79/18*

D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, SW)

2-Nitro-2-methyl-propan-1-ol (I) is made by condensn. of 2-nitropropane (II) with formaldehyde in a mol. ratio of 0.9-1.1:1 in the presence of 1-10 milliequivalents of a basic mineral catalyst per mol. (II). The (II), a minor amt. of the formaldehyde in liq. form and the basic catalyst are reacted in the given order in the presence of an amt. of water corresp. to 1.5-10% of the total reaction mass. The greater part of the formaldehyde is then added portionwise, with stirring, in solid polyoxymethylene form, such that the temp. is maintained at 40-58°C. The pH of the medium is held at 7-11. After the condensn., the mixt. is neutralised with an acid to pH 4-5 at a temp. of ≤ 55°C. The (I) is obtd. in crystalline form by cooling or by stirring with removal of water and volatile impurities from the crude prod. by means of an inert gas stream.

Process allows direct prodn. of (I) with a purity of 95%, without the expensive concn. and recovery operations required with prior art processes. 6.2.79 as 400075 (5pp513) (F).

LENN/ D22 41476 C/23 =EP --19-628

Heat-sealable bag for sterile packing - comprises sheet of microporous paper coated with aq. suspension contg. talc and cellulose binding agent heat sealed to plastics sheet

LENNAARD D 16.11.78-SW-011816

*A92 F09 Q34 + Q32 (A96) (10.12.80) *WP8001-062 B65d-65/42 B65d-81/24 D21h-01/22*

D/S: E(CH, DT, FR, GB, LU, NL, OE)

15.11.79 as 901580

GLYC- D22 80779 B/44 #EP

Antimicrobial compsn. for aq. systems - comprises formal prod. with 5,5-di:methyl hydantoin and complexing agent

GLYCO CHEMICALS INC 19.08.77-US-826265 (23.05 300919)

*C03 E13 H07 (E12) (10.12.80) *US4172-140 +A01 C07d-233/72 C10m-01/32 C11d-03/48*

D/S: E(DT, FR, GB, NL)

Antimicrobial compsn. comprises a condensn. prod. of 5,5-dimethylhydantoin and formaldehyde together a water-soluble chelating agent (II).

The compsns. may be aq. and (I) + (II) provide an unexpectedly good preservative and antimicrobial act Typical compsns. include metal working fluids, cutti oil fluids, corrosion inhibitors etc., including oil-in- and water-in-oil emulsions.

23.5.79 as 300919 (28pp1248)

(E) ISR: US3408843; US3240701; US3987184; US40739 1 Journal reference.

FARH D22 57019 C/33 =EP --

Water-swellable, water-insoluble acrylic polymers - are ma hydrolysing polyacrylonitrile (co polymers with an aq. alkaline

HOECHST AG 29.01.79-DT-903267

*A14 +P34 (10.12.80) *DT2903-267 C08f-08/12 +A61l-15 07/12 D01f-06/18*

D/S: E(BE, CH, DT, FR, GB, IT, NL, OE)

Water-insoluble acrylic polymers with a high water swelling capability are made by reacting acrylonitrile (co)polymers at >100°C with aq. alkaline solns. opt. contg. a water-miscible organic solvent.

The prods. have good hydrophobic and water swelli properties and may be used in the form of powders, granules, fibres, fabrics, etc., in the prodn. of catame tampons, dressings, nappies, bed underlays, shoe upp and soles, upholstery, window leathers, tablecloths, wiping cloths, etc.

21.1.80 as 100288 (18pp513)

(G) ISR:-

TEMO- ★ D22 90551 C/51 ★EP --1

Knitted therapeutic vest - made of triboelectrically active fibres and supported roll-over neck

TEMOVA ETAB 21.05.79-CH-004739

A83 F07 S05 P21 P32 P34 (X27) (10.12.80) A41d-01/04 A A61n-01/10

D/S: E(BE, DT, FR, GB, IT, LU, NL, OE, SW).

A therapeutic vest for the treatment of ailments of th cervical and shoulder region has short sleeves, a nec part of twice the neck length, a sliding clasp fastener front and an elasticated bottom. The neck is folded o a stiff insert of expanded plastic. The vest is made o knitted material which is triboelectrically active and sists of a mixture of PVC and acrylic fibres.

Clinical tests have shown that the effective neck support combined with the electrostatic charges acqu by the vest have a curative effect on ailments of the n spine and shoulder region.

17.5.80 as 102747 (17pp39)

(G) ISR: DTU713591; US3921626; CA1053402; FR12311 FR1483807; FR1065114; CH---4263; DS-242782.

CILA D22 45019 C/25 =EP --2

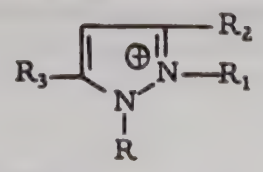
1-Alkyl-2-substd.-pyrazolium salts - useful as antimicrobial age

CILAG CHEMIE AG 21.05.79-US-041130

*B03 C02 (10.12.80) *US4207-326 C07d-231/12 +A01n-43*

D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW)

1-Alkyl-2-substd.-pyrazolium salts of formula (I) are new:



t is 10-18C alkyl with ⩾ 10C in its longest chain; R_1 1-5C alkyl, 3-5C alkenyl, $PhCH_2$, nitrobenzyl, halo-enzyl or dihalobenzyl:
$_2$ and R_3 are H or Me; $X^{\ominus}$ is an anion).
(I) are antimicrobials esp. broad-spectrum anti-acterials, antifungals and antiyeasts. Used in disinfect-ng solns. or compsns. at 0.1-15% concn.
).5.80 as 301659 (28pp1248)
E) ISR: GB1534338; GB1221061; US3910949; US3655690.

AUL/ ★ D22 90677 C/51 ★EP --20-157
terilising U-trap of sink in hospital - by electrical immersion heater ctivated when sink is used
PAULL N W 01.06.79-AU-009032
S05 P34 (10.12.80) A61l-11
/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

n electrical immersion heater is positioned beneath the ater in the U trap of a sink to kill any bacterial flora resent in the trap. Pref. the immersion heater compri-es an electrical element inside an oil-filled housing.
Pref. the immersion heater is energised when water is ischarged by the sink. The water operates a tongue con-ected to a timer circuit which maintains the heater ener-ised for a time sufficient to complete the sterilisation.
The device destroys bacteria which might accumulate the trap of a hospital sink.
).5.80 as 301799 (20pp295).
C)ISR: US2708074; DT2503605.

OHN/ ★ D22 90744 C/51 ★FR 2450-612
erilising liq. esp. machine tool coolant with UV rays - involves awing liq. into thin film to assist penetration
BOHNENSIEKER F 05.03.79-DT-908521
P34 (07.11.80) A61l-02/10
ne liq. to be sterilised is drawn out into a very thin film d irradiated during and/or after being so drawn out.
The machine pref. comprises a hollow cylinder of artz glass rotating on its axis in a horizontal plane. The linder has a lower arc of its circumference immersed liq. to be sterilised. The cylinder contains 'U.V' lamps hich emit radiation to pass through the glass wall of the linder and through the thin film of liq. picked up on the terior of the wall. Sterilised liq. is subsequently scrap-d from the cylinder by a doctor blade. For more pro-nged irradiation, the liq. can be passed to several glass linders in succession.
Instead of the liq. being drawn into a thin film on the ll of a glass cylinder, the liq. can be centrifuged out-rds from the centre of a rapidly, rotating horizontal sc. The centrifuged film is irradiated by a ring of 'U.V' mps parallel to the disc.
Used for sterilising liqs., partic. liqs. into which 'U. rays can penetrate only a few hundredths of a milli-etre, such as emulsions of cutting oil for cooling the tters of machine tools. 4.3.80 as 004831 (13pp448)

MA/ D22 44833 C/25 =GB 1581-586
otwear printed with metal-contg. resin ink - for prevention of our and treatment of infections
YAMAUCHI A 23.06.76-JA-074764
*F06 P21 +P22 (17.12.80) *US4206-514 A41b-11 +A43b-13/38 A61k-33/34*
anitary footwear article has a portion to be contacted ectly with the sole of a wearer's foot and comprises a id sanitary compsn. applied to the surface of the port-
The compsn. comprises a water-insoluble resin binder l a metal powder of copper, silver or a copper-silver by in opt. mixt., dispersed in and held by the binder. e metal powder has an average particle dia. of 10-60 crons and is used in amt. 50-150 pts. wt. per 100 pts. of binder.
The footwear article is esp. prepd. in the form of a sock, stocking or panty stocking, and the solid sanitary compsn. is porous. 23.6.79 as 026287 (4pp931).

TATL ★ D22 90797 C/51 ★GB 2048-670
Barrier cream contg. sucrose ester surfactant - together with fatty acid soap, emollient and filler
TATE & LYLE LTD 24.05.79-GB-018081
E17 (17.12.80) A61k-07/40
Water-based barrier cream compsns. contain (a) a surfactant comprising ⩾1 sucrose ester, (b) ⩾1 Gp.II or III metal soap of an 8-20C fatty acid, (c) a fatty emollient, and (d) a filler.
The compsns. pref. contain 1.8-5.0 wt.% of (a), 2.5-7.0 wt.% of (b), 3.0-7.0 wt.% of (c), 8-10 wt.% of (d), and also 1.3-3.5 wt.% of a mixed glyceride component (e), opt. together with 3.0-7.0 wt.% of a thickener (e.g. cetyl alcohol) and 2.0 wt.% of a film-forming agent (e.g. carboxymethyl cellulose).
Components (a), (b) and (e) can be used in the form of a paste produced by reacting a crude sucrose ester transesterification product (contg. sucrose esters, mixed glycerides and alkali metal soaps) with a soln. contg. Gp.II or III metal (esp. alkaline earth metal) ions, e.g. as described in GB 1500341. The compsns. are biodegradable and contain no petroleum derivs. 24.5.79 as 018081 (3pp367).

KAOS ★ D22 90800 C/51 ★GB 2048-684
Lateral leakage free rectangular sanitary towel - with concavities in long sides of absorbent core and outer sheets bonded to form flaps
KAO SOAP KK 07.05.79-JA-U60320
P32 (17.12.80) A61f-13/16
A towel has an absorbent member between a liq. impermeable backing sheet and a liq. permeable nonwoven fabric facing. A concave area is formed over part of the central part of the member longer sides and the backing and facing are bonded together to form flaps on the outside of the longer sides. The flaps pref. have concave areas corresp. to the first area, and the member min. width is 50-90% of its max. while concave area length is 20-90% of total member length. The backing is e.g. of polyethylene, opt. laminated with paper, polyvinylalcohol or waterproof paper. The member is e.g. of fluffed pulp, tissue or polymer and rayon staple fibres may be inserted between member and facing.
The arrangement improves adhesion to the contact area. 28.4.80 as 013935 (5pp1358).

YOSH ★ D22 90932 C/51 ★J5 5140-503
Preserved plywood mfr. without affecting strength - uses a formaldehyde condensable adhesive contg. tin tri:alkyl and/or tri:allyl cpds., and, sulphur pref. present as metallic sulphide
YOSHITOMI PHARM IND KK 20.04.79-JA-049211
A81 C01 F09 P63 (C03) (04.11.80) B27k-03/16
Sulphur or a monovalent metal sulphide, and ⩾1 trialkyl or triallyl tin cpds. are mixed into the adhesive used to adhered the veneers to make the plywood.
Pref. Na_2S, K_2S, Na or K polysulphide, etc. Pref. tin cpds. are bistributyl tin oxide and/or tributyl tin laurate, palmitate, stearate, phthalate, etc. Ratio of Sn cpd.: S or sulphide is 1:⩾1. Pref. adhesive is a phenol. formaldehyde, melamine-formaldehyde, urea.formaldehyde or urea-melamine.formaldehyde resin, etc.
The preservative spreads excellently into the wood to give a plywood with good antiseptic properties.
20.4.79 as 049211 (5pp120)

KAKE ★ D22 90933 C/51 ★J5 5140-504
Anti-mould agent for wood and timber - comprises polyoxin or salt
KAKEN CHEM KK 20.04.79-JA-048029
C03 F09 P63 (04.11.80) B27k-03/34 C09k-15/34
Moulding of wood and timber may be prevented by applying polyoxin which has little toxicity and causes no pollution problems.
At least one of polyoxyn A or O or a salt thereof such as of Al, Zn, Ba, Mn, Cu, Ca, Mo, Ni, Co or Fe may be used, manganese salt, copper salt calcium salt,

molybdenum. This agent may be used in aq. soln. but is usually used with normal support or adjuvant in the field of agricultural chemicals. The agent may be used in the form of liquid, emulsion, aq. soln., suspended solution, etc. 20.4.79 as 048029 (4pp120)

RYON ★ D22 91052 C/51 ★J5 5141-142

Controlling red tide - by applying hydrogen peroxide, calcium peroxide and/or peroxy-hydrate

RYONICHI KK 20.04.79-JA-048648

C03 P14 (D15) (04.11.80) A01k-63/04

Red tide is controlled by applying H_2O_2, Ca peroxide and/or peroxyhydrate e.g. (excluding Na percarbonate) Na per-oxymetasilicate urea peroxide, Na peroxysulphate, etc. over an area where red tide occurs or the occurrence of red tide is expected.

Method is applicable not only to the treatment of a red tide-dominated area but also for the prevention of red tide. The quality of water is not impaired, fish, animals, vegetables and humans are not put at risk. Method is also applicable to the control of abnormal multiplication of plankton in a fresh water lake or swamp. 20.4.79 as 048648 (4pp117)

FREU- ★ D22 91056 C/51 ★J5 5141-182

Food preservation method - by packaging a liq. contg. ethanol or a material impregnated with liq. in ethanol permeable vessel for placing in food container

FREUND SANGYO KK 19.04.79-JA-047223

A92 Q34 (04.11.80) A23l-03/34 B65d-81/18

Method involves packaging a liq. contg. ethanol above (sic) 50 vol. % or a material selected from cotton, cloth, paper and nonwoven fabric which is previously impregnated with aq. ethanol contg. ethanol above 50 vol. %, in a vessel, of which $\geqslant 1$ side is structured of a film showing ethanol gas permeability of >20 g/m²/24hr/50 RH/40°C, air-tightly in the case including foods.

Void in the case are filled with dilute ethanol gas and the microbes adhered to foods, can be sterilised without adversely affecting the taste and flavour, colour, etc. of foods. When liquid ethanol is used, one can easily know from outside of the case whether any ethanol is remaining or not. On the other hand when ethanol-impregnated material is used, it not only serves as preservative, but also as a towel for sterilising hands before taking foods. 19.4.79 as 047223 (8pp5)

CHCC ★ D22 91063 C/51 ★J5 5141-244

Deodorant compsn. - comprises glyoxal, phosphate buffer of pH 5 to 9 and expanded vermiculite

CHISSO CORP 20.04.79-JA-048725

*E17 P34 (05.11.80) A61l-09/**

The compsn. can remove bad smells e.g. ammonia, mercaptan cpds., etc. and its activity remains for a long period of time.

The glyoxal is a 40% aq. soln. The buffer soln. is acid carbonate soln., K monohydrogen phosphate/di-sodium hydrogen phosphate, etc. The ratio of glyoxal soln. to buffer soln. is 1:100 to 200:100. The expanded vermiculite has 5-50 times expanded ratio and 0.05-7mm av. particle size. 20.4.79 as 048725 (7pp22)

DUSK- ★ D22 91064 C/51 ★J5 5141-245

Cleansing and deodorant compsn. for flush toilet - comprising tri:alkyl trioxane cpd., surfactant, washing aid and perfume

DUSKIN FRANCHISE KK 23.04.79-JA-049115

*E13 P34 (05.11.80) A61l-09/**

Trialkyl trioxane cpd., surfactant, washing aid and perfume are mixed with one another and then the resultant is moulded into tablets, whereby there is obtd. washing and aroma compsn. for flush toilet. The present tablets can give aroma for long period of time and there is observed no deformation, decomposition, etc.

The alkyl moiety of the trialkyl trioxane is one having 3 to 6 carbon atoms, most typical example of which includes triisopropyl trioxane, tri-t-butyl trioxane, etc. The amount of trialkyl trioxane to be used is 40-80 wt. %. The surfactant may be any known one and amount is 5-30 wt. %. The washing aid includes urea, sodium sulphate, sodium carbonate, etc. Amt. used is 5 to 30 wt. %. 23.4.79 as 049115 (6pp22)

SUZU/ ★ D22 91065 C/51 ★J5 5141

Deodorant composition - comprises ferrous sulphate powder sodium bi:carbonate powder mixt.

SUZUKI Z 24.04.79-JA-051100

*E31 P34 (E34) (05.11.80) A61l-09/**

Ferrous sulphate powder and $NaHCO_3$ powder are well dried, and then both are mixed and blended under norm temp. to give deodorant compsn. Pref. ratio of the bot components is 5 wt. % of ferrous sulphate and 95 wt. % $NaHCO_3$.

The compsn. can effectively eliminate bad smells caused from the decomposition of protein, e.g. ammon indole, scatol, and other volatile base cpds. The comp is applied in the powdered state or as aq. soln. in a concn. of 0.01-0.001 wt. %. 24.4.79 as 051100 (3pp22)

WASA/ ★ D22 91247 C/51 ★J5 5142

Heat generating compsn. - comprising iron powder and acidic soln. providing heat by exothermic oxidn.

WASA Y 24.04.79-JA-049825

G04 P32 (06.11.80) A61f-07/08 C09k-05

Compsn. comprises (a) iron powder and (b) an acidic (pH $\leqslant 4$) aq. soln. separately, and provides heat by exothermic oxidn. reaction by direct mixing (a) and (b) in the presence of oxygen. Specifically (b) is used in an am of 0.05-1 times wt. of (a). (b) is impregnated in moistu retaining agent, e.g. active carbon, wood dust, bentoni etc. (b) is produced by dissolving a water-soluble Fe sa Al chloride (in this case (b) is 0.05-0.4 wt. times that (a)), organic dibasic acid, e.g. citric acid, oxalic acid malic acid etc. Fe salt plus Al chloride, etc. The com psn. contains (a) and a water-impermeable sachet inclu ing (b), and mixing is achieved by breaking the sachet c use.

Heat generation starts rapidly and continues at a con stant temp. By choosing the kind, amt. of the acidic material, and pH, the time to start heat generation, te and tis duration may be freely adjusted. The device is compact and low cost. Uses are e.g. portable body hea ers, portable fuels etc. 24.4.79 as 049825 (5pp)

KAOS ★ D22 91379 C/51 ★J5 5142-

High absorption disposable diaper - comprises high polymer wc absorbing sheet interposed between chemical pulp layers

KAO SOAP KK 20.04.79-JA-048836

A96 P21 (07.11.80) A41b-13/02

Disposable diaper consists of a two layered water adso tion layer made up of an upper chemical pulp layer hav a wt. 0.5-1.5 times as heavy as the lower chemical pu layer, as described below, and also contg. more than 0.01 wt. % a cationic surfactant, and the lower chemica pulp layer having surface area 1-5 times as wide as th high polymer water absorption sheet, as described bel and also contg. less than 0.005 wt. % cationic surfactan and a high polymer water absorption sheet, having a su face area more than that of the upper chemical pulp lay interleaved between the said two layered water absorpt layer.

The diaper has excellent absorbability for excremen liquid as well as less reversion of the excrement liquid etc, thus keeping person with the diaper comfortable. high polymer water absorption sheet includes starch sh polyacrylnitrile sheet, polyacrylic acid polymer sheet, etc. 20.4.79 as 048836 (6pp117)

SHID D22 26277 Y/15 =J8 0046-

Insecticidal compsn. for wood - based on octachloro-hexahy methanoidene and (N -nitroso-(N)-cyclohexyl-hydroxyan aluminium salt

SHINTO PAINT KK (SHIN-) 27.08.75-JA-104280

*C01 E12 F09 P63 (C03 E15) (22.11.80) *J52028-909 B27 +A01n-29/08 A01n-33/26*

The compsn. contains 1,2,4,5,6,7,8,8-octachloro-2,3

, 7a-hexahydro-4, 7-methanoindene (I) and N-nitroso-yclohexylhydroxyamine aluminium salt (II).
'he long-lasting effect of (I) is improved by incorpora- (II). (II) is used in an amt. of ≥0.1 pts. wt. pref. .2 pts. wt. per 1 pts. wt. of (I). The oil formulation repd. by dissolving the methanoindene and the hydroxy- ne Al salt is fatty or aromatic hydrocarbons, ketones lcohols. When using the oil formation without dilut- the concn. of the methanoindene is adjusted to 2-3 wt. When diluting at the time of use, the concn. of the hanoindene in the oil formulation is adjusted to 40-60 %. Alternatively, the conc, oil formulation is emulsi- in water, and may be used as such having a concn. -6 wt.%. In preparing the emulsion formulation, an ulsifying agent may be used e.g. esp. polyoxyethylene bitan alkylate, alkylarylsulphonate, polyoxyethylene nylphenol, polyoxyethylene alkylallylether, polyoxyalk- ther . The emulsifying agent is used in an amount of 0 wt.% pref. 5-7 wt.% based on the total compsn. in lying the compsn. wood is sprayed or coated, than air- ed or heat-dried. The dosage of the compsn. is 150-) g/m² wood area. 27.8.75 as 104280 B27k-3/00, A01n- /26 (22.11.80) SHINTO PAINT KK (3pp)(J52028909)

PG D22 35472 A/20 =J8 0046-740
gh molecular material having blood anticoagulation properties - duced by reaction of a high molecular weight substance, contg. ydroxy gp., with heparin
NIPPON ZEON KK 14.09.76-JA-111220
*A96 B07 P34 (A11) (26.11.80) *J53035-781 A61m-01/03 C08f-08/34*
ef. reaction is effected in acid soln. in the presence of pd. having ≥2 gps. from aldehyde, acetal and hemi- tal in the mole. The prod. is used for covering the tact face of blood and moulded prod. The moulded prod. ng esp. film, sheet or tubular. The high mol. wt. cpd. tg. hydroxy gp. may be (hemi)cellulose, starch, alginic d, galactan, araban, galactomannan, gum arabic and tosan. 14.9.76 as 111220 A61m-1/03, C08f-8/34 .11.80) JAPAN GEON KK (5pp)(J53035781)

G D22 46991 A/26 =J8 0046-741
mer compsn. which on contact with blood does not cause gulation - used e.g. to mfr. artificial kidneys
NIPPON ZEON KK 04.11.76-JA-132623
*A96 B07 P34 (A11 A60 B04) (26.11.80) *J53057-287 A61m-01/03 C08f-08/34*
ymer materials are prepd. by treating polymers havi- ≥1 hydroxy in molecule with periodic acid and/or iodate and/or lead tetraacetate to cause fission in mer between carbon having hydroxy group and adjacent oon and reacting the resulting polymer with heparin. Products are useful for mfr. of semiphermeable mem- nes to contact with blood such as artificial kidney, stant circulating appts. various catheters, cannulas, s, blood preservative vessels. Injectors or the like licinal articles. 4.11.76 as 132623 A61m-1/03, C08f- 1, (26.11.80) JAPAN GEON KK (6pp)(J53057287)

G D22 46992 A/26 =J8 0046-742
mer compsn. which on contact with blood does not cause ulation - used e.g. to mfr. artificial kidneys
IPPON ZEON KK 04.11.76-JA-132624
*96 B07 P34 (A11 A60 B04) (26.11.80) *J53057-288 A61m-1/03 C08f-08/34*
rmer materials are prepd. by treating heparin with of periodic acid, periodate and lead tetraacetate, ause fission in heparin between adjacent two carbons having hydroxy group and reacting the resulting he- n with polymer materials having hydroxy in the mole- .
lood coagulation induced when contacted with blood be avoided by using prod. (I) as materials of medicin- ols. (I) is useful for semipermeable membranes to act with blood such as artificial kidney. assistant cir- ting appts. various catheters, cannulas, tubes, d preservative vessel, injectors or the like tools.

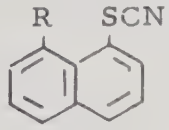
4.11.76 as 132624 A61m-1/03, C08f-8/34, (26.11.80) JAPAN GEON KK (6pp)(J53057288)

MEDO= ★ D22 91637 C/51 ★SU-731-972
Sterilisation of medical materials, e.g. rubber - by heating in sealed chamber at reduced pressure in contact with steam and formaldehyde vapours
MEDOBORUDOVANIE DES 06.07.77-SU-504444
P34 (12.05.80) A61l-01
Contaminated medical or surgical materials, e.g. rubber prods., are sterilised in sealed chamber at reduced pressure and lower than normal temp. in contact with steam and formaldehyde vapour mixt. to prevent deterioration of material and reduce sterilisation time.
In order to reduce the amt. of sterilising agent used in the process and reduce the evacuation degree of the chamber, the steam-formaldehyde mixt. is preheated to 100-120°C, filling the sterilisation vessel with it after partial evacuation of air to obtain partial vacuum of 0.6 atmos. After sterilisation and removal of the sterilisation mixt., the material is neutralised with ammonia gas at 0.5 atmos.
Tsibikov, V.B., Frosin, V.N., Izvekova, G.I., et al Bul. 17/5.5.80. 6.7.77. as504444(2pp938).

STEN/ ★ D22 91897 C/51 ★US 4236-470
Sewing corpses with needle-latching tongs - which transfer needle through skin when squeezed together
STENSON T K 17.01.79-US-004271
F05 Q36 (02.12.80) B65h-54/62
Corpses are sewn up with the aid of double-ended needle having a central filament eye which can be alternately latched into the ends of tong-like arms. When the arms are squeezed together, the needle held at the end of one arm engages in an opening in the end of the other arm and the latches are operated to engage the needle with the other arm.
Corpses are sewn up without handling of diseased body tissue. 17.1.79 as 004271 (6pp1320).

BRAU- D22 62000 A/35 =US 4236-550
Elastic bandage material - comprises warp of specific weight range polyamide plus rayon or cotton in various ratios
BRAUN K O KG 17.02.77-DT-706787
*A96 F03 P34 (A11 A23) (02.12.80) *DT2706-787 +D03d-15/08*
An elastic muslin bandage has a non-elastic weft and a warp of threads in a recurring sequence of (a) textured polyamide, spun polyurethane and/or rubber fibres, (b) cotton or cellulose threads of spun crepe fibre with S-twist and size Mn34/1, Mn40/1, Nm50/1, Nm60/1 or Nm70/1 and/or fine elastic twisted crepe fibre of Nm size 60/2, 70/2, 100/2 or 140/2 or 140/2, (c) as (a), and (d) crepe fibre threads with Z-twist.
The bandage can be used as a fixing dressing with high elastic behaviour, with easy application to conical extremities and joints, is conductive to moisture and heat and prevents slipping of individual layers. 1.2.78 as 874158 (8pp1358).

ICIL D22 47159 B/26 =US 4237-019
1-Thiocyanato-8-substd. naphthalene biocides - used to control bacterial, algal and fungal growth in cooling systems, cutting oils, paints, adhesives, etc.
IMPERIAL CHEM INDS LTD 23.12.77-GB-053749
*C03 G02 H08 P34 (D15 G03) (02.12.80) *BE-872-920 C10m-01/20*
1-Thiocyanato-8-substd. naphthalene cpds. of formula (I) are described. In (I) R is alkyl, alkoxy, aryl(oxy), OH, CN, NO_2, halo, sulphonic acid, prim., sec. or tert amino, carbamoyl or sulphamoyl. The naphthalene nucleus may be substd. by lower alkyl, lower alkoxy, halo, NO_2, NH_2, acylamino, sulphonic acid, sulphamoyl or thiocyanate.



(I)

Specific (I) is 1-acetylamino-5-nitro-4-thiocyanato-

naphthalene. (I) are useful as biocides esp. for protecting aq. media against infection by microorganisms. Pref. (I) is added in an amt. of 1-1000 ppm. by wt. (based on wt. of medium). The aq. medium is a water-based paint, metal-working fluid etc. 8.12.78 as 968433 (10pp924).

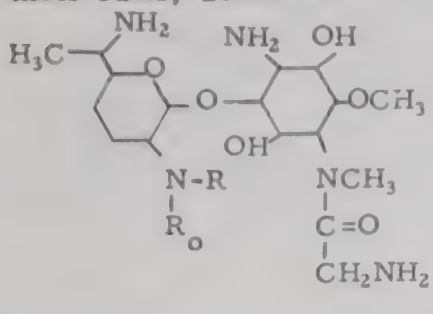
ABBO D22 49528 B/27 =US 4237-269

N-Substd.-fortimicin A derivs. - useful as broad spectrum antibacterials and disinfectants

ABBOTT LABORATORIES (KYOW) 21.12.77-JA-153000

*B03 E13 (02.12.80) *GB2010-825 A61k-31/71 C07h-15/22*

2-N'-substd. derivs. of fortimicin A of formula (I) and their salts, are new.



(I)

In (I), R_o is 1-4C alkyl; and R is $-C(=O)R_1$ or $-CHR_{11}R_{12}$ (where R_1 is 1-8C alkyl, 2-8C amino-alkyl, 1-5C hydroxyalkyl, 2-12C N-alkylaminoalkyl, 2-8C hydroxyaminoalkyl or 2-8C N-alkylaminohydroxyalkyl; and R_{11}-R_{12} are each H, 1-8C (amino)alkyl, 1-5C hydroxyalkyl, 2-9C carbamoylaminoalkyl, 2-12C N-alkylaminoalkyl, 2-8C aminohydroxyalkyl, 7-12C aralkyl, 2-8C N-alkylaminohydroxyalkyl or 7-12C aryloxyalkyl; or R_{11-12} together form cyclohexyl gp.

(I) are used as antibacterial agents and disinfect 20.12.78 as 971435 (21pp982).

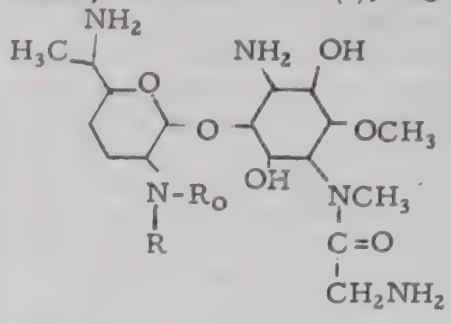
KYOW D22 51129 B/28 =US

2'-N-Substd. fortimicin A derivs. - used as broad antibacterial agents

KYOWA HAKKO KOGYO 21.12.77-JA-153001

*B03 C02 E13 (02.12.80) *DT2855-348 A61k-31/71 C07h*

N-Substd. derivs. of fortimicin A of formula (I) and salts, are new. In (I), R_o is H or together with R f opt. substd. 2-p lidonyl; and R is $-CH_2R'_1$, $-CH(R$ amidino (where amino, hydroxya alkyl or carbam aminoalkyl and H diaminoalkyl, di oxyalkyl, hydrox aminoalkyl or gu noalkyl).



(I)

(I) are used as antibacterial agents and disinfecta 20.12.78 as 971438 (19pp982).

D23: OILS; FATS; WAXES

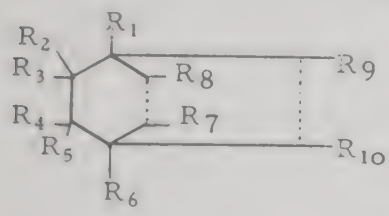
INFL D23 24567 W/15 =DS 2462-724

Bicyclo(2,2,2)octane derivs. used to modify organoleptic props. - prepd. by reacting 5-oxo-1,3-cyclohexadienes with olefinic acetylenic dienophiles

INT FLAVORS & FRAGR INC 01.10.73-US-402157

*E15 (11.12.80) *DT2443-191 A23l-01/22 A61k-07/46 C07c-35/22 C07c-49/42 C07c-69/24 C07c-121/48 C11b-09*

Bicyclo-[2,2,2]-octane derivs. of formula (I) are new. In (I), the dotted lines represent either a single or a double bond; one of R_2 and R_3 is H or 1-4C alkyl and the other H or OH or R_2 and R_3 together are O=; R_4 and R_5 are 1-4C alkyl; R_1, R_6, R_7 and R_8 are H or 1-4C alkyl; one of R_9 and R_{10} is H, $-CH_3$, cyano or carbomethoxy and the other H; at least five of the substituents R_1-R_{10} are not H. (I) is e.g. 2,3,4,5,6,6-hexamethylcyclohexane-2,4-diene-1-one.



(I)

(I) may be prepd. by reacting the appropriate hexadienone with a dienophile R_9-CH=CH-R_{10} or R_9-C≡C-R_{10} and then reacting with an organometallic cpd. followed by hydrolysis. The cpds. (I) are useful as perfumes. 10.9.74 as 462724 Div. ex 2443191 (12pp068).

CHEM ★ D23 90212 C/51 ★DS 2928-347

Alkoxymethyl-cyclododecane derivs. - useful as perfume components

CHEM WERKE HULS AG 13.07.79-DT-928347

E15 (11.12.80) A01n-27 A61k-07/46 C07c-43/04 C11d-03/50 D06m-13/18

Cyclododecane derivs. of formula (I) are new:

(I).

(where R is opt. unsatd. 1-4C alkyl).

(I) can be prepd. by etherifying hydroxymethyl-cyclododecane (II), which can be prepd. by hydroformylating 1,5,9-cyclododecatriene.

(I) have a woody aroma with an amber note and are useful as components of perfumes. 13.7.79 as 928347 (3pp367).

METG D23 29954 B/16 =EP G

Linear hexane free from aromatics - recovered from mixt. of benzene and non aromatics by extractive distn.

METALLGESELLSCHAFT AG 11.10.77-DT-745672

*E17 (10.12.80) *DT2745-672 C07c-07/08 C07c-09/14*

D/S: E(BE,DT,FR,GB,NL)

Benzene-free n-hexane (I) is recovered from a mixt contg. (I), benzene (III) and other non-aromatics, b tractive distn.

(II) is transferred into a first distn. column (IV), sump prod. contg. (III) and a head prod. comprisin boiling non-aromatics are withdrawn. The distillat laterally withdrawn above the inlet for (II) and trans into the upper part of a second distn. column (V). F (V) is withdrawn, as sump prod., the hexane cut (V) prising (I), (III) and minor amts. of non-aromatics in the boiling range of both components and fed into middle of an extractive distn. column and extracted with a selective solvent (VII) which is fed in above t inlet for (VI); a sump prod. contg. (VII) is withdraw the vapours conveyed overhead are condensed and w drawn as benzene-free (I). Pref. (II) is fed into the of (IV). 28.8.78 as 200157 (9pp481) (G).

HAAR D23 88500 C/50 =EP

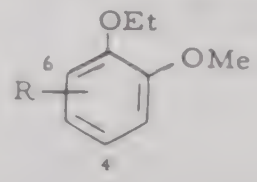
Iso:camphoryl guaicol ethyl ether derivs. - useful as interm for the sandalwood component iso:camphoryl cyclohexanol

HAARMANN & REIMER GMBH 25.05.79-DT-921139

*E14 (10.12.80) *DT2921-139 C07c-43/21 + C07c-29/2 41/16*

D/S: E(CH, DT, FL, FR, GB, IT, NL)

Guaiacyl ethers of formula (I) are new:



(I)

(R is an isocamphyl-5 gp. at either the 6- or pref. t 4-position).

They are made by alkylating the alkali metal salt of . or 4-[isocamphyl-5]guaiacol (II) with an ethyl halide or ethyl sulphate (DES).

(I) are useful in prodn. of 3-[isocamphyl-5]cyclohexnol (III) wich is an essential component of sandalwood xtracts.

1.5.80 as 102822 (10pp1251)

G) ISR: DT2707340; DS1668427; US3833671.

AOCM- ★ D23 90659 C/51 ★EP--20-123

aney catalyst particles encapsulated in solid fat, wax or polymer - nd rendered non-pyrophoric preventing attack of metal catalyst by xidation and subsequent combustion

AOCM LTD 31.05.79-GB-019054

A97 E19 J04 (10.12.80) B01j-25 B01j-31/06

/S: E(BE, CH, DT, FL, FR, IT, LU, NL, OE, SW).

catalyst compsn. comprises (a) particulate Raney atalyst, pref. in amt. of 40-80% dispersed in (b) solid fat, ax or polymer, pref. in amt. of 20-60%. Pref. wax is a ydrocarbon type, esp. paraffin or microcrystalline wax nd the fat is hard-or soft tallow, hydrogenated rape seed il or ground nut oil. Pref. catalyst is Raney Ni.

The catalyst is rendered non-pyrophoric, (b) acting as barrier to attack of the metal by atmos. oxidation, thus reventing conflagration of the catalyst and improving its andling props.

8.5.80 as 301749 (19pp966).

E) ISR: DS1186445; US4049580.

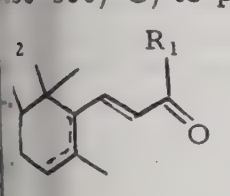
URS D23 90931 A/50 =GB 1581-494

onone and irone cpds. prepn. - by thermal rearrangement of ropargyl alcohol derivs.

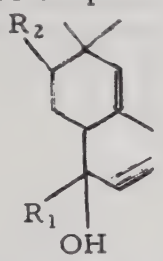
KURARAY KK 23.05.77-JA-060113 (23.05.77-JA-060112)

*B05 C03 E15 (17.12.80) *NL7805-059 C07c-33/05 C07c-49/21*

onones and iones are prepd. by thermally rearranging a ropargyl alcohol of formula (II) (pref. at 100-400 (esp. 30-300)°C) to produce a cpd. of formula (I).



(I)



(II)

R_1 is a 1-5C alkyl, R_2 is H or methyl and the dotted line in (I) depicts a double bond in one of the positions indicated. Pref. R_1 is methyl.

The method is selctive for alkyl ononers and n-type alkyl iones without iving rise to iso-type. Method does not require the use f an acidic cyclising agent. 22.5.78 as 021073 (11pp918).

AIY- ★ D23 91062 C/51 ★J5 5141-243

ow release perfume gel compsn. - of isoparaffin, sodium stearate, xylene glycol and/or ethanol

TAIYO KORYO KK 19.04.79-JA-047271

*P34 (05.11.80) A61l-09/**

el like aroma compsn. comprises 60 wt. % or more isorafin type hydrocarbon, 2 to 10 wt. % sodium stearate, to 15 wt. % hexylene glycol and/or ethyl alcohol, 0.5 to 0 wt. % water and 0.5 to 30 wt. % perfume. The isoparan type hydrocarbon has a formula of $C_{10}H_{22} \sim C_{16}H_{34}$. e isoparafin type hydrocarbon is prepared by condensaon of sorbitol and benzaldehyde, etc.

Prepn. of the compsn. consists of mixing all the comnents except the perfume and heating to 70-80°C so as dissolve sodium stearate completely, then the soln. is oled and mixed with the desired perfume. 19.4.79 as 7271 (3pp22)

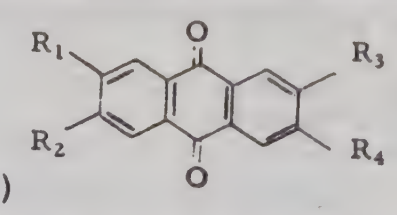
KA- D23 88966 Y/50 =J8 0046-436

nd oil prepn. - using alkyl substd. anthraquinone as catalyst for ymerisation of fats and oils

SAKATA SHOKAI LTD -27.04.76-JA-048841

*A82 E14 G02 (A60 A97) (22.11.80) *J52130-805 +C09d-03/32 C09f-07/06*

ocess comprises polymerising fats and oils (e. g. mi-drying oil) using an alkyl-substd. anthraquinone of mula (I) as catalyst. In the formula, R_{1-4} are each H



(I)

or alkyl, provided that all not H.

Catalyst lowers reaction temp. required by 20°C. Stand oil of excellent colour, acid value and dryness is obtd. useful in paints, printing inks, etc. 27.4.76 as 048841 C09f-7/06, C09d-3/32 (22.11.80) SAKATA SHOKAI LTD (4pp)(J52130805)

NISW D23 04568 Y/03 =J8 0046-679

High quality semisolid wax prodn. - by esterification of straight and branched chain, satd. higher fatty acids when polyol condensate

NISSHIN OIL MILLS KK 00.00.76-JA-057894 (05.04.75-JA-040797)

*B07 E17 (D21) (25.11.80) *J51138-705 C11c-03 +A61k-07*

The wax is prepd. by esterifying (a) straight-chain satd. 8-18C fatty acid and (b) branched chain satd. 8-18C fatty acid (20-70 wt. % on total fatty acid), with (c) polyol condensate chosen from di(trimethylol)ethane, di(trimethylol) propane, diglycerin, and dipentaerythritol.

The wax is used in cosmetics and medicines because of its stable quality. It does not crystallise out or split in preservation. Its m. pt. is 30-50°C that is similar to bodily temp. Therefore uncessary to blend other components to lower its m. pt. It has air-permeability and not irritant character. 5.4.75 as 057894/76 Div. ex. 40797/75 C11c-3/00, A61k-7/00, (25.11.80) NISSHIN OIL MILLS KK (2pp)(J51138705)

INFL D23 30925 W/19 =SU-731-951

Cis-2-methyl-3-pentenoic acid from methyl acetylene - for use in aroma and fragrance compsns

INT FLAVORS & FRAGR INC 22.07.74-US-490717 (23.10.73-US-408854)

*E17 +P15 (D13 D18) (08.05.80) *DT2446-826 A23l-01/22*

High, i. e. 50 wt. % cis-2-Me-3-pentenoic acid(I) is pref. prepd. by (a) reacting MeC=CH with a MeMg halide, e. g. at 40-60°C in an inert solvent for 4-12 hrs;(b) reacting the MeC=CH-Mg halide Grignard reagent obtd. with AcH to form a 3-pentyn-2-ol-Mg halide salt which is (c) hydrolysed;(d) halogenating the 3-pentyn-2-ol obtd esp. with PCl_3 at 20-25°C;(e) reacting the 4-halo-Mg halide-2-pentyne-Grignard reagent which is(f) reacted with CO_2 to form an Mg halogen-carboxylate salt mixt. -ME-C≡C-CHME-COOMgX and MeCH=C≡CMe-COOMgX(g)hydrolysing e. g. with HCl at 20-30°C; to form a mixt of (i)2-Me-3-pentynoic acid and(ii)2-Me-2, 3-pentadienoic acid, e. g. in(i):(ii) ratio of 3:1 and(h) hydrogenating with H_2 in presence of a Pd catalyst to form a mixt. contg. 80%(I)and 20% 2-Me-2-pentenoic acid. (I) is used in modifying organoleptic properites of a perfume compsn., a perfumed article e. g. soaps, detergents or cosmetics; food-aromator fragrance compsns., foods or tobacco and imparts a sweet, green, sharp strawberry character.

Hall, J. B., Vinals, J. F., Shaster, E. J., et al Bul. 17/5.5.80. 22.8.75. as076551(3pp).

LENI ★ D23 91753 C/51 ★SU-732-237

Synthetic fatty acid prepn. for soap mfr. - by paraffin direct oxidn. using cobalt, chromium and aluminium or boron oxide mixt. catalyst on alumina and manganese ore carrier

LENINGRAD LENSOVET TECH 05.12.77-SU-550571

E17 (05.05.80) C07c-51/20 C07c-53

Synthetic fatty acids are prepd. by catalytic oxidn. of para-ffin hydrocarbons with O_2-contg. gas at 120-140°C.

The selectivity of oxidn. into monocarboxylic acids is increased by using oxide catalyst Co:Cr:Al (or B) in molar ratio of 3-18:1-6:1 supported on alumina/Mn-ore mixt. carrier (in ratio 1-100:1). Natural Mn-ore has compsn. (wt. %): Mn 57;Fe 18;Co 1.5; Si 15;Al 2.5;Ce 6.45;P 0.05.

Using 0.05-0.5 wt. % of pulverised catalyst (passing 100-150 mesh) on paraffin (e. g. Std. 9348-60;b. pt. 163-200°C under 4 mm mercury press.) gives monocarboxylic acid selectivity 62% (max.) and process time 4.5 hrs. (min.) (previously using Al/Mn/Fe/Si/Ca fusion catalyst gave 34.3-50% and 6 hrs. respectively).

The catalyst is prepd. by impregnating granulated alumina with aq. solns. of nitrates or boric acid (e. g. for 1

day) and drying in air and 3 hrs. at 120°C before decompos -ing nitrates at 500°C.
Azhikova R. M., Syroeshko A. M., Nadirov N. K. et. al. Bul. 17/5. 5. 80 5. 12 77 as 550571 (4pp114)

RHON D23 02383 B/02 =US 4237-072
Optically active citronellal synthesis - by hydrogenating neral or geranial using rhodium deriv. and phosphine complex as catalyst
RHONE-POULENC INDUSTRIES 04.07.77-FR-021377
*E17 (02.12.80) *EP-----315 C07c-47/20*

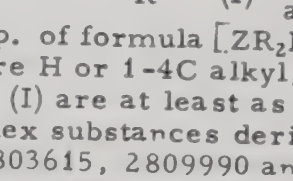
Optically active citronellal is prepd. by the asymmetrical hydrogenation of neral or geranial by their treatment with H_2 in a liq. reaction medium. The reaction occurs in the presence of a sufficient amt. of a catalyst-complex formed from a rhodium deriv. and a chiral phosphine, at sufficient temp. and pressure.

Pref. the catalyst is prepared in situ, the rhodium deriv. being a salt of a mineral or organic acid or a complex of rhodium with an achiral ligand. The chiral phosphine contains ≥1 chiral C and/or ≥1 chiral P, and the reaction occurs at 0-150°C, with a H_2 pressure of 0.1-100 bars.

The prod. is esp. used in the synthetic production of (-) (1S)-menthol at a lower cost price than natural me 30. 6. 78 as 920981 (5pp931).

SAKB D23 14429 B/08 =US 423
2-Cyclopentenone derivs. with jasmine smell - mad decarboxylation of 5-tert. butoxycarbonyl 4-met carbonyl:methyl-5-(cis-2-pentenyl)-2 cyclopentenone
OTSUKA KAGAKU YAKUHIN 12.08.77-JA-097173
*E15 (02.12.80) *DT2824-841 C07c-67/73*

Novel prepn. of a mixt. of 2-cyclopentenone derivs. (e but only 1 of, ... may be a double bond) where R_2 is n or iso alk(en)yl or aralk and A is H comprises dec boxylating 5-(cis-2-pente 2-cyclopentenone of formu (I, A is $COOR_1$) R_1 is isoa The reaction is in the pre of NaCl.



(I)

The prods. are useful perfumes as jasmin oil fragrances. The yield is high than in prior art. 8. 6. 78 as 913691 (6pp965).

See Also
D13 J8 0046697 D13 US 4237290

D24: SOAP; SOAP DETERGENTS

WEBE- D24 62642 C/36 =DS 2907-010
Machine for cutting soft substances such as soap - has blades mounted on chain with adjustable distance between blades
WEBER & SEELANDER 23.02.79-DT-907010
*P62 (D13) (11.12.80) *DT2907-010 B26d-01/56*

A machine for the cutting of a strand of plastic material such as soap, cheese or margarine into blocks of certain length and weight consists of an endless chain which carries triangular side plates on a pivot in one apex. Each side plate has a kidney-shaped elongated hole in which another pivot on the inside apex of the adjacent side plate is guided. The first pivot is also the hinge for a mour a cutter blade which is caused by an inclined guide rai for the second pivot to penetrate deeper into the stran until it has severed it.

By using a handwheel to change the height of the gu rail, the distance between the cutter blades can be var This creates an easy and accurate adjustment for the sired length of cut. 23. 2. 79 as 907010 (8pp39).

D25: OTHER DETERGENTS

MAZA/ ★ D25 C/51 ★CS 7907-608
Liquid cleaning agent for hard surfaces
MAZAL P 08.11.79-CS-007608
M12 (29.08.80) C23g-05

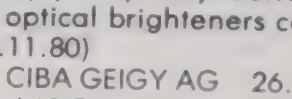
BENC ★ D25 90279 C/51 ★DT 2921-945
Prodn. of granules contg. poly:phosphate and aluminosilicate - by contacting powdered mixt. with superheated steam
BENCKISER J A GMBH 30.05.79-DT-921945 (00.00.77-DT-714604)
E37 (D15) (11.12.80) C02f-01/42 C11d-03/02

Prodn. of granular prods. contg. higher polyphosphate (I) and ion-exchanging alkali metal aluminosilicate (II) is carried out as in the Parent Patent (DT 2714604) with the improvement that the powdered premix of (I) and (II) is passed downwards through a pipe, in which it is contacted with superheated steam at 100-140°C and dried in a hot air stream.

Products are useful as builders for detergent compsns. and as water softeners. The process gives non-caking free-running, abrasion-resistant granules without the use of wet granulation (cf. DT 2714604) 30.5.79. as 921945 Add to 2714604 (18pp367)

FARB ★ D25 90233 C/51 ★DT 2921-142
Surfactant per:fluoroalkane sulphonamide salts - used e.g. as polymerisation emulsifiers, paint levelling agents, and additives for detergent compsns. and photographic film
BAYER AG 25.05.79-DT-921142
A60 C03 E19 (11.12.80) B01f-17/26

The use of salts, pref. of formula (I), as surfactants claimed:



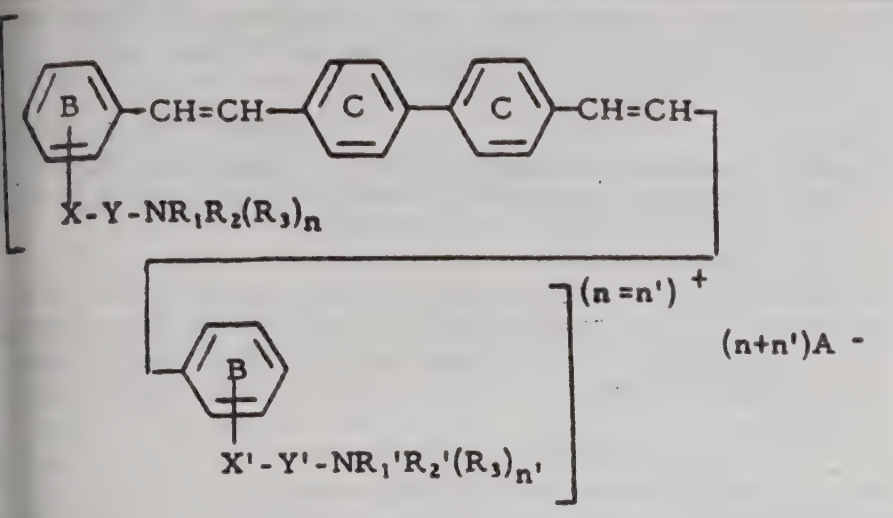
(I)

(where R_f is a 4-20C perfluorinat aliphatic gp.; R is H, 1-4C alkyl, hydroxyalkyl or 3-6C cycloalkyl; M an alkali(ne earth) metal or an onit gp. of formula $[ZR_2R_3R_4R_5]^+$, where Z is P or N and are H or 1-4C alkyl, hydroxyalkyl or alkoxyalkyl).

(I) are at least as effective surfactants as more com plex substances derived from them (cf. US 2703656, 2803615, 2809990 and DT 1140188). They can be used, e.g., as emulsifiers for polymerisation (esp. of F-co monomers); wetting agents for polymers, drilling muc fibres, etc.; mould release agents for silicones; level agents for paints; additives for agrochemical compsns 25.5.79. as 921142 (14pp367)

CIBA ★ D25 90527 C/51 ★EP --1
Di:styryl-bi:phenyl derivs. contg. amino or ammonium gps. - u as optical brighteners compatible with cationic fabric softener 10.11.80)
CIBA GEIGY AG 26.06.79-CH-005952
A60 E24 F06 (10.12.80) C07c-93 C07c-101 C07c-146/06 149/24 C07d-213/02 C11d-01/62
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW).

Biphenyl derivs. of formula (I) are new:



here X and X' are direct bonds, O, S, -O-Z-CON(R_4)-, ON(R_4)-, -O-Z-COO-, -OCO- or -COO-, provided that and X' are not -CON(R_4)- or -O-Z-CON(R_4)- when n+n'= and that A^- is not a phosphite or phosphonate anion when n'=2 and X and X' are -CON(R_4)- or -COO-.
and Y' are 1-20C alkylene.
is 1-3C alkylene.
, R_1', R_2 and R_2' are opt. substd. 1-8C alkyl or 3-4C kenyl and R_3 is H, opt. substd. 1-4C alkyl or 3-4C alkyl, or NR_1R_2 and/or $NR_1'R_2'$ are heterocyclic rings, r $NR_1R_2R_3$ and/or $NR_1'R_2'R_3$ are pyridine or picoline ngs.
is H or opt. substd. 1-6C alkyl.
is a colourless anion.
and n' are 0 or 1.
ngs B and C are opt. substd. by non-chromophoric substituents).
4.80 as 101862 (62pp367).

G) ISR:-

NK D25 86448 C/49 =EP--19-734
bric-softening detergent powders - contg. nonionic and itterionic surfactant and quat. ammonium fabric softener
HENKEL KG AUF AKTIEN 07.05.79-DT-918363
*A97 E19 F06 (10.12.80) *DT2918-363 C11d-01/94*
S: E(BE, CH, DT, FL, FR, IT, NL, OE)

shing powder compsns. with a fabric-softening action mprise the following components:
5-20 wt.% of ethoxylated alcohols of formula (I): $(CH_2CH_2O)_nH$ (where R is $R_1R_2CHCH_2$ and n = 2-20, or R 8-15C alkylaryl and n = 3-15; R_1 is 8-20C straight-chain yl or alkenyl; R_2 is H or 1-4C alkyl);
1-10 wt.% of a 12-18C fatty acid ethanolamide;
1-10 wt.% of a zwitterionic cpd. of formula (II): $R_4R_5N-R_6-X$ (where R_3 is a 10-22C (cyclo)aliphatic or ylaromatic gp., pref. 12-22C n-alkyl; R_4 is 1-4C alkyl, 4C hydroxyalkyl or $(CH_2CH_2O)_mH$, where m = 2-5; R_5 is phenyl, benzyl or tolyl; R_6 is 2-4C alkylene or hydroxylene; X is COO^-, OSO_3^- or SO_3^-.
2-10 wt.% of a fabric-softening quat. ammonium salt lected from derivs. of ammonia and/or imidazoline, pref. h 2 long-chain aliphatic gps. and
50-91 wt.% of conventional washing-powder ingredients.
4.80 as 102334(21pp367)
) ISR: DT282619; DT2742007.

JL ★ D25 90658 C/51 ★EP--20-122
rose fatty acid ester(s) prepn. - from sucrose and fatty acid enyl ester in polar aprotic solvent to give mainly mono:ester
TATE & LYLE LTD 24.05.79-GB-018082
E13 (10.12.80) C07h-13/06
S: E(BE, CH, DT, FL, FR, IT, LU, NL, OE, SW).

ono- and di-esters (I) of sucrose (II) and a long chain ty acid are prepd. by reaction of (II) with a fatty acid enyl ester (III) in a polar aprotic solvent under anhydus conditions.
Esterification of (II) with (III) gives a high degree of rose conversion, and gives a prod. which contains inly mono-esters of sucrose and little unreacted (II) no soap. (I) (esp. mono-esters) are known non-toxic, teless, biodegradable, solid surfactants (esp. detergs).

(E) ISR: FR1365067; US3308100; GB-826801; US2928828.

INTE- D25 06399 A/04 =GB 1581-465
Sodium percarbonate granules for use in washing powders - where granules contain a metaphosphate which increases stability
INTEROX 27.07.76-LU-075466
*E34 (17.12.80) *BE-857-017 C01b-15/10*
Prodn. of Na percarbonate granules comprises (i) impregnating seeds with an aq. phase or phases contg. Na percarbonate or its precursors and (ii) evaporating water from the impregnated seeds in a fluidised bed dryer in the presence of ≥1 condensed phosphate (I).
Specifically (I) is a hexametaphosphophosphate. Pref. the granules contain 0.01-50(0.1-20)g. (I) per kg. prod.
The granules are used in washing powders and are abrasion resistant and storage stable. 27.7.77 as 031494 (11pp982).

UNIL ★ D25 90829 C/51 ★GB 2048-931
Dimensionally stable detergent bar - comprising a water resistant crosslinked film forming material matrix.
UNILEVER NV 12.04.79-GB-013074 (11.04.80-GB-011985)
A97 (17.12.80) C11d-01/12 C11d-03/37 C11d-17
A detergent bar comprises a water-resistant matrix, which is a crosslinked film-forming material, in an amt. sufficient to reduce the sogginess and/or rate of wear of the bar. The use of a crosslinked material including gelatin, casein, soyabean extract, urea- or melamine-formaldehyde resin, methyl or carboxy methyl cellulose, polyvinyl acetate or polyvinyl alcohol is claimed.
The bar may comprise 5-60 wt.% detergent active material and 5-60 wt.% detergent builder material. The amt. of crosslinkable film-forming material may be 0.1-50, pref. 0.5-10 wt.%, based on the total bar. Crosslinking can be effected by heating or using a crosslinking agent (0.01-100 wt.% based on the film-forming material).
The bar is useful for fabric or personal washing or for cleaning hard surfaces. It is non-deformable, i.e. dimensionally stable and structurally consistent. 11.4.80 as 011985 (9pp558).

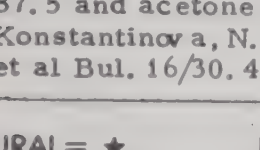
PROC ★ D25 90862 C/51 ★J55112-371
Fibre softening compsn. - comprising a homogeneous blend of fine smectite clay, organic base and wetting or dispersing agent
PROCTER & GAMBLE CO 23.04.79-US-032450 (13.11.78-US-960147)
E19 (29.08.80) D06m-11/06 D06m-13/28
Compsn. comprises a homogeneous blend which consists of (a) 10-80 wt.% of fine smectite clay having an ion exchange capacity of 50 meq/100 gram, (b) one of prim., sec. or tert. organic amine or their water soluble or dispersible salt, organic quat. ammonium cpd., organic phosphonium cpd., or organic sulphonium cpd., in an amt. of 1-50 wt.% in proportion to the clay, and (c) 10-90 wt.% of a wetting agent or a dispersing agent involving an electrolyte or an anionic surfactant. The smectite clay is chosen from a montmorillonite of alkali metal or alkali earth metal.
Compsn. is added in a domestic laundry machine for cleaning a textile material. 13.11.79 as 046978 (25pp)

PROC ★ D25 90864 C/51 ★J55115-499
Antistatic detergent compsn. for textiles - contains anionic and nonionic surfactants and quat. ammonium cpd. contg. long chain aliphatic gp.
PROCTER & GAMBLE CO 15.12.78-US-969893
E19 (05.09.80) C11d-01/86
The compsn. comprises a homogeneous blend of (a) 5-75 wt.% of an anionic surfactant, (b) ≤40 wt.% of a nonionic surfactant and (c) 0.01-10 wt.% of a quat. ammonium cpd. of formula: $(R_1R_2R_3R_4)^+Y^-$ where ≥1 of R_1, R_2, R_3 and R_4 is 16-22C aliphatic group, 10-16C alkyl-phenyl or alkyl-benzyl and residual substituents out of R_1, R_2, R_3 and R_4 are each 1-4C lower alkyl group, hydroxy 2-4C alkyl or a cyclic cpd. contg. a N atom as one cyclic member and Y is an anionic radical of hydroxide, halogen sulphate, methyl-sulphate, ethyl-sulphate or phosphate salt ion.

The compsn. imparts anti-electrostatic character and soft tangibility to textiles. 15.12.79 as 163431 (17pp)

KAOS ★ D25 91264 C/51 ★J5 5142-100
Bleaching agent compsn. - contains sodium percarbonate, amino-poly carboxylate and aminoacid
KAO SOAP KK 23.04.79-JA-050113
A97 E19 (E34) (06.11.80) C11d-07/54

Bleaching agent compsn. contains 70-90 wt. % sodium percarbonate (A), 1-10 wt. % an aminopolycarboxylate (B) of the formula (I)



(I) (where R is a 1-4C alkyl, $-(CH_2)_n-OH$, $-(CH_2)_{n-1}COOM_3$, or $-(CH_2)_2-N(CH_2CH_2OH)(CH_2COOM_3)$ (n is 1 or 2 and M_3 is H, alkali metal, or alkaline earth metal), and M_1 and M_2 are, respectively, alkali metal or alkaline earth metal), and 1-10 wt. % of one or more of threonine, valine, glycine, serine, alanine, or an alkali metal or alkaline earth metal salt of these, glutamic acid, aspartic acid, histidine, proline, oxyproline, or an alkali metal or alkaline earth metal salt of these, and the dipeptide or tripeptide of these aminoacids.

The compsn. has improved bleaching power either solely or in combination with well-known detergent compsns. without damaging colours, patterns, etc. It may contain an inorganic salt, an organic salt, etc., as a stabiliser, polyethylene glycol, etc., as a stain inhibitor, etc., in addn. to a surfactant, etc. 23.4.79 as 050113 (8pp117)

KONS/ ★ D25 91469 C/51 ★SU-730-802
Detergent for removing polishing and grinding paste - comprises azeotropic mixt. of tri:chloro tri:fluoro-ethane and acetone and polyoxyethylated synthetic alcohol fraction
KONSTANTINOVA N V 17.06.77-SU-498652
G04 (30.04.80) C11d-07/50

Detergent for removing precision components lapping and polishing paste from metal surfaces comprises(in wt. %): azeotropic mixt. of trichloro-trifluoroethane and acetone 85-90 and polyoxyethylated 10-18C synthetic fatty alcohols(I) 10-15.

Inclusion of (I) enhances the detergent props. A specific azeotropic mixt comprises:trichlorofluoroethane 87.5 and acetone 12.5.

Konstantinova, N. V., Stolyarova, V. N., Chernov, A. P., et al Bul. 16/30. 4. 80. 17. 6. 77. as 17. 6. 77. as498652(3pp).

URAL= ★ D25 91470 C/51 ★SU-730-803
Conc. bleaching disinfecting and cleaning compsn. - contains sodium hypochlorite, sodium silicate, sodium phosphate and water
URAL CHEM IND INST 19.09.77-SU-526775
E34 (30.04.80) C11d-07/56 D06l-03/06

Concd bleaching, disinfecting and cleaning compsn. comprises(in wt. %): NaOCl(calculated as active Cl) 13.0-15.0, NaOH 2.2-2.5, Na silicate 0.8-1.2, di- or tri-sodium phosphate 0.8-1.2 and desalinated water the balance.

The compsn. has good storage stability and high cleaning power. It is useful for bleaching and cleaning cellulosics etc in baths with an active Cl content typically of 0.04 wt. %.

Pashkov, A. L., Grubman, L. P., Khvorostinskaya, L. et al Bul. 16/30. 4. 80. 19. 9. 77. as526775(2pp314).

FATS= ★ D25 91812 C/51 ★SU-
Prepn. of synthetic detergent compsn. - using hydrodynam mixing of constituents at specific Reynolds No. to control visc
FATS RES INST 28.03.77-SU-465946
(08.05.80) C11d-11/02

Synthetic detergent compsn. is made up by mixing th stituents in a hydrodynamic flow regime having a Re No. of 7800-14000 at a temp. of 65°-75°C for 2-5 m

The constituents are then further mixed at 90°-98 2-4 mins.

The method produces a detergent compsn. having density and optimum viscosity props.

Ulyanov Yu. V., Grin V. T., Zarembo G. V. et al. 17/5. 5. 80 28. 3. 77 as 465946 (3pp314)

CERT- ★ D25 91976 C/51 ★US 4
Dishwashing compsn. contg. sodium hypochlorite - added to dry mix of builder, carrier and alkali silicate
CERTIFIED CHEMICALS 16.06.78-US-916407
E34 (02.12.80) C11d-07/54

A dishwashing compsn. is prepd. by mixing an aq. s of sodium hypochlorite at a rate of 4-25% per minute dry ingredients including at least one alkaline seques builder salt, a water soluble carrier and an alkali m silicate having $SiO_2:M_2O$ ratio 1:1 to 3.22:1. Sufficie hypochlorite is used to provide 0.25-1.6% available rine. The mixture is agitated until granules are for and these are dried to a moisture content of 0.25-5%

The compsn. is stable, uniform and has excellent characteristics. It has excellent metal corrosion inh tion and china overglaze protection props. 16. 6. 78 916407 (8pp955).

ALKU D25 20636 C/12 =US 4
Prodn. of fabric conditioners contg. quat. ammonium cpd quaternising tert. amine in medium comprising phase-t agent
AKZONA INC 08.09.78-US-940532
*E16 F06 (E11) (02.12.80) *EP---8-839 C07c-141/04 C07f-0*

A quat. ammonium methylsulphate-contg. compsn. i prepd. by reacting a tert. amine with dimethyl sulph a medium contg. an ester deriv. of an 8-22C fatty ac and 2-6C di- or polyhydric alcohol.

The reaction medium has a m. pt. of 0-100°C, an reaction proceeds at a temp. > that m. pt., but < th gradation temp. of the prod., for sufficient time to a conversion of ≥ a portion of the tert. amine.

The tert. amine contains 1 and/or 2 long-chain al tic gps., and esp. has the formula $NR_1R_2R_3$, where R an 8-22C aliphatic; R_3 is 1-4C alkyl, $(CH_2CH_2O)_gCH_2$ or $(C_3H_6O)_gC_3H_6OH$ where g is 0-5; and R_2 is any of t R_1 or R_3 gps. 8. 9. 78 as 940532 (6pp931).

See Also

D16 J8 0046711 D21 DT 3020649 D21 J8 0464

ARB 01.04.72 BAYER AG D18 E21 =J5 5142-778
Black trisazo dyes contg 4,4'-diamino diphenylamine-2-sulphonic - 64100U/43
ARB 12.06.76 BAYER AG A97 D18 E19 =GB 1581-678
Tanning hides or leather - 00257A/01
ARB 23.07.76 BAYER AG B02 C02 D13 =GB 1581-460
Beta-lactam antibiotics used as pharmaceuticals - 08559A/05
ARB 21.02.78 BAYER AG A97 B05 D16 (A14) =EP G003-786
Phenyl-glycine derivs. enzymatic optical resolution - 63329B/35
ARB 10.03.79 BAYER AG C02 D22 E13 F06 (C03 E14 F09) =ZA 7905-385
Synergistic microbicidal compsns. - 34789C/20
ARB 25.05.79 BAYER AG A60 C03 D25 E19 *DT 2921-142
Surfactant per:fluoroalkane sulphonamide salts - 90233C/51
ARB 28.05.79 BAYER ITALIA SPA B02 C02 D21 *EP --19-720
Antiparasitic, anti-seborrhoea, anti-pruritic compsn. - 90531C/51
ARB 01.06.79 BAYER AG D18 E21 =EP --19-846
Azo dyes for simultaneous tanning and dyeing of leather - 88578C/50
ARB 05.06.79 BAYER AG B03 C02 D13 *DT 2922-760
Bis:tri:hydroxy-piperidinyl alkane derivs. - 90331C/51
ARB 05.06.79 BAYER AG B03 C02 D13 =EP --19-899
Bis:tri:hydroxy-piperidinyl alkane derivs. - 90331C/51
ARB 05.06.79 BAYER AG B03 C02 D13 =PT --71-308
Bis:tri:hydroxy-piperidinyl alkane derivs. - 90331C/51
ARE= 14.12.76 FAR E POLY D12 T06 X25 *SU -731-944
Fish intestines removal plant - 91622C/51
ARH 07.10.74 HOECHST AG A11 D12 (A32 A88 A97) =CA 1090-074
Moulded bodies from modified albumin - 30353X/17
ARH 27.07.76 HOECHST AG C03 D13 E35 =HU T019-113
Treating microbial cellular mass with ammonia and alcohol solvent - 08318A/05
ARH 14.02.78 HOECHST AG A96 B07 D21 (A14) =US 4237-243
Thickening cosmetic, pharmaceutical compsns. etc. - 61669B/34
ARH 29.01.79 HOECHST AG A14 D22 =EP --19-681
Water-swellable, water-insoluble acrylic polymers - 57019C/33
ARH 03.03.79 HOECHST AG C02 D22 E13 =PT --70-890
Fungicidal phenyl-beta-triazolyl or imidazolyl acrylic acid derivs. - 69837C/40
ARH 03.03.79 HOECHST AG C02 D22 E13 =PT --70-891
Fungicidal 2-phenyl-3,3-bis-triazolyl-propionic acid ester(s) - 69838C/40
ARH 05.06.79 HOECHST AG D15 *DT 2922-778
Solids liquid separation - 90335C/51
ARH 05.06.79 HOECHST AG D15 =EP --19-928
Solids liquid separation - 90335C/51
ARH 08.06.79 HOECHST AG A92 D12 *DT 2923-186
Section of tubular packaging sleeve - 90357C/51
ARH 09.06.79 HOECHST AG A14 D22 F06 (A96) *DT 2923-435
Swellable crosslinked PVA ether prodn. with limited water solubility - 90370C/51
ARM 07.06.79 FARMITA C ERBA SPA B02 C02 D13 *BE -883-686
Desoxy paromomycin derivs. - 90156C/51
ATS= 28.03.77 FATS RES INST D25 *SU -732-375
Prepn. of synthetic detergent compsn. - 91812C/51
DE 07.05.79 FEDERAL PAPER BOARD CO D11 =GB 2048-829
Pastry box container - 84771C/48
RR- 01.06.79 FERROKEMIA IPARI SZ A96 B03 D21 E13 =DT 3014-045
Compsn. used as cosmetic prod. e.g. shampoo, ointment - 56909C/33
RR- 01.06.79 FERROKEMIA IPARI SZ A96 B03 D21 E13 =NL 8000-446
Compsn. used as cosmetic prod. e.g. shampoo, ointment - 56909C/33
O 11.01.79 FISCHER & PORTER CO D15 *US 4237-008
Gravity flow disinfection of water - 91969C/51
M 16.03.78 FIRMENICH SA B02 D13 E13 =J8 0046-692
l,6-Naphthyridine and alkyl derivs. - 72125B/40
K- 30.04.79 FISKERITEKNOLOGISK D12 *NO 7901-459
epn. method and device for fish roe - C/51
OD= 15.12.77 FOOD IND CORRESP D16 S03 X25 *SU -732-742
Wine type gas chromatographic determn. - 91868C/51
OD= 03.01.78 FOOD IND CORR COLL D16 *SU -732-384
parkling wine prodn. line - 91813C/51
M- 19.12.78 FRAM EUROPE LTD A88 D15 J01 =ZA 7906-867
Oily water corrugated plate separator - 53811C/31
S- 14.11.77 FRESENIUS E CHEM PH A97 D15 J01 X25 =US 4236-987
on-selective membranes contg. siloxane in an inert carrier - 39244B/21
S- 05.03.79 FRESENIUS CHEM PHAR A96 D22 (A11) =FR 2450-632
olloidal antifreeze agent of hydroxyethyl starches - 69839C/40
S- 05.03.79 FRESENIUS CHEM PHAR A96 D22 (A11) =FR 2450-850
rosslinked hydroxyethyl-starch - 67840C/39
J- 19.04.79 FREUND SANGYO KK A92 D22 *J5 5141-182
ood preservation method - 91056C/51
I/ 08.04.70 FRINGS H D16 (D11) =J8 0046-707
nking yeasts prodn - 68145S/43
N/ 20.04.77 FRUNZE POLY D15 *SU -732-216
emoval of heavy metal ions from aq. electrolysis effluents - 91735C/51
06.09.78 FUJISAWA PHARM KK B04 D16 J04 S03 (S05) =EP --19-638
mmobilised enzyme column, esp. for clinical analysis - 27239C/15

FUJI/ 07.10.77 FUJIMOTO S D15 J03 =J8 0046-237
Alkaline calcium ion contg. water prodn. - 44726B/24
*FURA= 18.05.79 FUR ANIMALS AND RABBITS B04 C03 D16 *GB 2048-669
Living virus culture vaccine against canine distemper - 90796C/51
FUSO- 04.04.77 FUSO KENSETSU KOGYO D15 =J5 3124-375
Fluid stirrer - 91423C/51
*FUSO- 04.04.77 FUSO KENSETSU KOGYO D15 *J8 0046-213
Fluid stirrer - 91423C/51

GALL- 16.09.77 GALLAHER LTD A97 D18 =US 4236-532
Preparing wrappings for smoking prods., esp. cigarette paper - 22053B/12
*GAMR/ 11.05.78 GAMREKELI M N D13 *SU -731-945
Dried milk drying chamber gas offtake appts. - 91623C/51
GAST/ 10.04.79 GASTON B R D21 =J5 5141-406
Frozen cosmetic blocks or sticks contg. e.g. pure foetal material - 77557C/44
*GENM 31.05.79 GENERAL MILLS INC D12 *DT 3020-671
Frozen fish block slicing machine - 90468C/51
*GEOM= 14.07.77 GEOMINVOD HYDROGEOL D15 E31 *SU -732-211
Iron cpds. removal from subterranean water by aeration - 91730C/51
GESL 27.04.79 KERNFORSCHUNGS KARLSRUHE D15 K07 =GB 2049-261
Discharging waste waters contg. tritium into the sea - 46243C/27
*GESU- 05.03.79 GENERALE SUCRIERE D15 *FR 2450-785
Treating industrial effluent by sepn. of salts held in soln. - 90754C/51
*GESU- 30.05.79 GEN SUCRIERE SA D17 *EP --20-124
decationising aq. sugar solns. - 90660C/51
GETP- 05.03.79 GETPLAST D12 =FR 2450-563
appts. for reconstituting minced steak - 51711C/30
*GIAN/ 30.05.79 GIANNOTTI P D15 *BR 7903-379
Desalinator for sea water using ionic dissociation - C/51
GIZA- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) =PT --71-193
Methane and fertiliser sludge produced from animal farm effluent - 67764C/39
GIZA- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) =PT --71-194
Methane and agricultural fertiliser sludge prodn. - 67763C/39
GLYC- 23.05.79 GLYCO CHEMICALS INC C03 D22 E13 H07 (E12) #EP --19-670
Antimicrobial compsn. for aq. systems - 80779B/44
GOOR 16.10.78 GOODRICH B F CO A14 D22 F01 (A96) =DK 8002-556
Water-absorbent films and fibres prepn. - 69767B/38
*GORL/ 05.01.78 GORLOVSKII D M A41 C04 D15 E16 *SU -732-212
Continuous purificn. of waste water from urea mfr. industry - 91731C/51
GRAC 10.06.75 GRACE W R CO A96 B04 D16 =US 4237-229
Immobilized biological material - 96238X/52
GRAI 08.08.73 GRAIN PROCESSING CORP D17 E12 (E17) =J8 0046-716
Alkali metal gluconate recovery - 14719W/09
*GRIT- 26.04.79 GR INT ELTRN LTD D16 L03 S03 *GB 2049-199
Probe for sensing bacterial activity - 90856C/51
GULO 27.04.79 GULF OIL CORP D16 (D17) =DK 8001-042
Reuse of endoglucanase and cellobiohydrolase enzymes - 67666C/38
GULO 27.04.79 GULF OIL CORP D16 (D17) =NO 7903-101
Reuse of endoglucanase and cellobiohydrolase enzymes - 67666C/38
GULO 27.04.79 GULF OIL CORP D16 (D17) =SW 7907-773
Reuse of endoglucanase and cellobiohydrolase enzymes - 67666C/38
*GYAR/ 19.01.75 GYARMATI J D15 J04 *HU T019-059
Appts. for the magnetic treatment of liquids - C/51
*GYON/ 30.01.80 GYONGYOSI J D14 *HU H002-578
Machine for coring and dicing peppers or cleaning onions - C/51

HAAR 22.12.77 HAARMANN & REIMER GMBH B02 C02 D13 E13 =EP G002-735
Piperonylidene-crotonamide derivs. prodn. - 45730B/25
HAAR 25.05.79 HAARMANN & REIMER GMBH D23 E14 =EP --19-845
Iso:camphoryl guaicol ethyl ether derivs. - 88500C/50
HAAS/ 12.04.79 HAAS F D11 =BR 8002-263
Waffle block cutting machine - 79107C/45
HAGE- 07.04.79 HAGER & ELSASSER D15 =J5 5139-890
Power station water saving system - 73795C/42
*HALU= 04.08.77 HALURGY RES PLAN D15 J01 *SU -732-019
Centrifugal separator for highly dispersed suspensions - 91674C/51
HASE- 18.09.75 HASEGAUG T CO B03 C02 D13 E13 (D23) =J8 0046-697
(2)-Ethyl-(6)-acetyl-pyrazine flavouring agent prodn. - 31888Y/18
HAYB 06.03.79 HAYASHIBARA SEIBUTS B03 D13 E13 (D16) =FR 2450-876
Prodn. of non-cariogenic foods, etc. - 68044C/39
HENK 29.02.72 HENKEL KG AUF AKTIEN A60 D15 E17 F09 =DS 2209-559
Antifoaming compsns - 54705U/38
HENK 07.04.73 HENKEL & CIE GMBH D23 J01 =HU T019-043
Fractionation of fatty materials - 74291V/43
HENK 10.09.73 HENKEL KG AUF AKTIEN D21 =DS 2345-621
Keratine contg. softening compsns for waving hair - 19251W/12
HENK 28.06.76 HENKEL KG AUF AKTIEN D21 E14 =GB 1581-579
(4)-Alkoxy-(5)-alkyl (meta)-phenylene-diamines - 02007A/02
HENK 16.02.77 HENKEL CORP A96 D21 E17 (A14) =GB 1581-621
Lubricant compsn. for personal care products - 03978A/02

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HENK 16.02.77 HENKEL CORP A96 D21 = GB 1581-622
Lubricating keratinous substrates esp. skin and hair - 40427A/23
HENK 20.04.79 HENKEL KG AUF AKTIEN D23 E17 = J5 5142-097
Hydrotrope for solubilising perfume oils in ionic solns. - 79254C/45
HENK 07.05.79 HENKEL KG AUF AKTIEN A97 D25 E19 F06 = EP --19-734
Fabric-softening detergent powders - 86448C/49
*HENK 25.05.79 HENKEL KG AUF AKTIEN C03 D13 *DT 2921-213
Growth promoting animal feed - 90238C/51
HENK 25.05.79 HENKEL KG AUF AKTIEN C03 D13 = EP --19-809
Growth promoting animal feed - 90238C/51
*HETO 18.11.77 HETEROORG CPDS AS USSR D13 *SU -731-952
Vitaminised nutritive emulsion compsn. - 91629C/51
*HETO 13.04.78 HETEROORG CPDS AS USSR D13 *SU -731-950
Prodn. of confectioners' jelly - 91628C/51
HISM 19.04.79 HISAMITSU PHARM KK A96 B05 D22 = J5 5141-408
Adhesive wound dressings - 76316C/43
HITA 18.04.79 HITACHI KK D15 J03 X25 = J5 5139-803
Preventing deposition on electrodialysis ion exchanger membranes - 81149C/46
*HITA 20.04.79 HITACHI KK D15 J01 *J5 5139-805
Sedimentation sludge drainage control system - 90871C/51
*HITF 18.04.79 HITACHI SHIPBLD ENGG KK D15 *J5 5139-900
Treatment of river sludge - 90910C/51
HITG 18.04.79 BABCOCK-HITACHI KK D15 J03 X25 = J5 5139-803
Preventing deposition on electrodialysis ion exchanger membranes - 81149C/46
HOON- 04.05.78 HOONET SAS DI INDRO D14 = US 4236-541
Washer and dryer esp. for fruit and vegetables - 84417B/47
*HORS/ 29.05.79 HORSTMANN G D22 J04 L03 X26 (D13 D15) *DT 2921-716
Low pressure mercury lamp for reactions etc. - 90261C/51
HOWA/ 06.03.72 HOWARD A N B05 D13 = US 4237-118
Mineral and vitamin dietary supplement - 91788X/49
HOWA/ 14.11.73 HOWARD H H D13 #DS 2356-879
Potato sugar leaching - 75253U/49
*HOWA/ 01.06.79 HOWARD A N D13 *EP --19-675
Dry compsns. for making savoury beverages - 90520C/51
HUSQ 03.02.78 HUSQVARNA AB D13 W02 X25 X26 = US 4237-145
Protein-contg. food prodn. - 61730B/34
*HUTT/ 01.06.79 HUTTINGER K J D22 E19 F06 X25 (F09) *DT 2922-347
Antimicrobial surface treatment of materials - 90296C/51

IAVP 20.12.77 VEB ARZNEIMITTEL DR B02 D16 = US 4237-291
Recovering ergot alkaloid(s) from culture suspension - 54811B/30
*ICHI- 23.04.79 ICHIMARU BOEKI KK A96 D21 *J5 5141-405
Prepn. of microcapsules contg. soln. of placenta extract - 91106C/51
ICIL 05.08.74 IMPERIAL CHEM INDS LTD A96 D22 F04 = CA 1090-071
Fibrous mat material for medical dressings - 15261X/09
ICIL 23.12.77 IMPERIAL CHEM INDS LTD C03 D22 G02 H08 (D15 G03) = US 4237-019
1-Thiocyanato-8-substd. naphthalene biocides - 47159B/26
ICIL 12.09.78 IMPERIAL CHEM INDS LTD C02 D13 = ZA 7904-449
Tri:chloro-methyl-benz-heterocyclic cpds. - 33092C/19
ICIL 20.11.78 IMPERIAL CHEM INDS LTD A96 D22 F04 (A28) = ZA 7906-151
Shaping electrostatically spun fibre body - 38704C/22
*IDEM 21.04.79 IDEMITSU PETROCHEM KK D16 *J5 5141-137
Base material for adhering aquatic organisms - 91051C/51
INDK 29.05.79 IND WERKE KARLSRUHE AG D16 = EP --19-898
Soil improver prodn. from pelletised refuse and sewage sludge - 88538C/50
INFL 01.10.73 INT FLAVORS & FRAGR INC D23 E15 = DS 2462-724
Bicyclo(2,2,2)octane derivs. used to modify organoleptic props. - 24567W/15
INFL 23.10.73 INT FLAVORS & FRAGR INC D23 E17 (D13 D18) = SU -731-951
Cis-2-methyl-3-pentenoic acid from methyl acetylene - 30925W/19
INFL 15.08.77 INT FLAVORS & FRAGR INC D13 E24 = DS 2835-387
Stabilised red beet dye compsns. - 06001B/03
INSE- 06.03.79 INST NAT SANT INSER B04 D16 S03 (S05) = FR 2450-877
Agglutination test for detecting influenza virus - 68243C/39
*INSP 01.06.79 INST PASTEUR B04 D16 S03 *EP --20-278
In vitro diagnosis of cystic fibrosis or mucoviscidosis - 90718C/51
INTE- 27.07.76 INTEROX D25 E34 = GB 1581-465
Sodium percarbonate granules for use in washing powders - 06399A/04
INTR- 09.03.79 INTRADAL NV D21 G04 = FR 2450-861
Alcohol-free hair- and cosmetic spray aerosol - 68002C/39
INVE- 06.11.78 INVENTOR INVEST AB D16 = EP --19-627
composting container with outlet opening - 38236C/21
ISEH- 24.12.76 ISEHAN HONTEN KK D21 E24 = J8 0046-367
Cosmetic contg. animal protein fixed carthamine pigment - 59472A/33
ITAF 08.05.79 ITALFARMACO B04 D16 = GB 2048-711
Reactor for enzyme reactions - 65987C/38
ITII- 22.11.78 ITI ICEBERG TRANS I D15 = ZA 7906-268
Protective skirt for tabular iceberg - 43808C/25
ITOC- 24.01.77 ITO-CHU SEITO KK D17 = J8 0046-218
Regenerating anion exchange resin used for purifying sugar syrup - 66158A/37

*JAOR 23.04.79 JAPAN ORGANO KK D15 *J5 5142-511
Sewage or dirty water sludge treatment equipment - 91306C/51
*JAOR 23.04.79 JAPAN ORGANO KK D15 *J5 5142-590
Hydrazine contg. waste water purificn. - 91340C/51
JAPC 04.04.79 NIPPON SHOKUBAI KAGAKU A88 D15 J01 (A26) = 2048-718
Prodn. of semi-permeable membranes - 73897C/42
JAPG 14.09.76 NIPPON ZEON KK A96 B07 D22 (A11) = J8 0046-740
High molecular material having blood anticoagulation propert 35472A/20
JAPG 04.11.76 NIPPON ZEON KK A96 B07 D22 (A11 A60 B04) = 0046-741
Polymer compsn. which on contact with blood does not c coagulation - 46991A/26
JAPG 04.11.76 NIPPON ZEON KK A96 B07 D22 (A11 A60 B04) = 0046-742
Polymer compsn. which on contact with blood does not c coagulation - 46992A/26
JOHJ 30.03.78 JOHNSON & JOHNSON D21 M26 = ZA 7901-506
Non-precious metal dental alloy - 79432B/44
JOHJ 03.04.78 JOHNSON & JOHNSON D22 E12 (E16) = ZA 7901-554
Liq. toilet compsns. of reduced irritating potential - 75719B/42
JOHJ 03.04.78 JOHNSON & JOHNSON D22 = ZA 7901-588
Diaper with contoured absorbent batt - 00389C/01
JOHJ 04.04.78 JOHNSON & JOHNSON A81 D22 G03 (A18 A96) = Z 7901-555
Pressure sensitive adhesive tape for surgical use - 75725B/42
JOHN- 26.03.79 JOHNSON CONTROLS IN D15 T06 = GB 2049-235
Effluent flow control - 79098C/45
*JOHN- 25.05.79 JOHNSON PROD CO B05 D21 *US 4237-112
Non settling hair and scalp conditioner contg. sulphur - 92019C/51

KAAS- 30.05.79 H & P KAAS SYSTEM T D15 = DT 3020-170
Purificn. of chlorinated water recycled for swimming pool et 73486C/42
KAAS- 30.05.79 KAAS H & P SYST TEK D15 = NL 8003-157
Purificn. of chlorinated water recycled for swimming pool et 73486C/42
*KAKE 20.04.79 KAKEN CHEM KK C03 D22 F09 *J5 5140-504
Anti-mould agent for wood and timber - 90933C/51
*KANA/ 18.04.79 KANAI M D15 E35 J01 *J5 5139-830
Sepn. of ammonia from water - 90888C/51
KANE/ 26.07.71 KANEKO K D16 = J8 0046-708
Culture of methane-utilizing bacteria - 14152V/08
*KANE/ 21.04.79 KANEKO K D13 J01 (D16) *J5 5142-512
Liquid e.g. fruit juice filtration - 91307C/51
KANF 30.12.76 KANEGAFUCHI KAGAKU B05 D16 E16 (E14) = US 423 227
D-N-Carbamoyl-alpha-aminoacid prodn. - 50085A/28
KAOS 20.04.79 KAO SOAP KK D25 = J5 5142-099
High-foaming skin non-irritant alkaline cleansing compsns. - 81132C
*KAOS 20.04.79 KAO SOAP KK A96 D22 *J5 5142-701
High absorption disposable diaper - 91379C/51
*KAOS 23.04.79 KAO SOAP KK A97 D25 E19 (E34) *J5 5142-100
Bleaching agent compsn. - 91264C/51
*KAOS 07.05.79 KAO SOAP KK D22 *GB 2048-684
Lateral leakage free rectangular sanitary towel - 90800C/51
KAUD/ 15.11.71 KAUDER K D15 J08 = DS 2156-578
Corrugated flexible tube - 32220U/23
KEND 18.12.78 KENDALL CO A96 D22 F06 = ZA 7906-835
Surgical dressing - 31122C/18
*KEND 09.08.79 KENDALL CO D22 *BE -884-705
Sleeve applying pressure to leg of patient - 90176C/51
KIBU- 06.05.76 KIBUN KK D16 = US 4237-232
Liquid culture medium free of insolubles - 55547A/31
KIKK 25.02.76 KIKKOMAN SHOYU KK B02 D16 = J8 0046-158
Separating and refining (3',5')-cyclic adenylic acid - 71742Y/40
KIMU/ 07.03.77 KIMURA H B03 D16 = J8 0046-159
Cytidine-phosphate choline prodn. - 78947A/44
*KING/ 29.05.79 KING A S D15 J03 X25 *US 4236-990
Self-cleaning electrode system for treating liq. - 91961C/51
KLOH 30.05.79 KLOCKNER-HUMBOLDT-DEUTZ D16 = EP --19-733
Biological sewage treatment optimisation - 88549C/50
KNUT/ 18.04.79 KNUTSON R A A96 B05 C03 D22 = J5 5141-409
Antibacterial, antifungal compsn. for treating wounds, burns et 62309C/36
*KOKU- 21.04.79 KOKURITSU YOBO EISE B04 D16 *J5 5141-416
Triple vaccine of low toxicity - 91108C/51
KOLM/ 18.05.79 KOLMEL P D12 = EP --19-810
Ham press - 84670C/48
KONN 20.12.78 GIST-BROCADES NV B04 C03 D16 = ZA 7906-944
Vaccine against reovirus infections in poultry - 48184C/28
*KONN 11.05.79 GIST-BROCADES NV B04 D16 *GB 2048-894
Plasmid conferring resistance to Streptomycin and Neomycin - 90824
*KONS/ 17.06.77 KONSTANTINOVA N V D25 G04 *SU -730-802
Detergent for removing polishing and grinding paste - 91469C/51

MOLE- 09.04.76 MOLEKULARBIOLOGISCH D16 #SU -731-903
Recovering unicellular protein grown on methanol - 48211X/26
*MOLI= 15.07.75 MOSC LIGHT ENG INST A97 D18 *SU -730-897
Wear-resistant fur prods. mfr. - 91521C/51
*MONS 03.02.71 MONSANTO CO D13 E33 *US 4237-147
Dry beverage compsns. contg. stabilised amorphous calcium carbonate - 92030C/51
MONS 15.11.76 MONSANTO CO B05 D21 E17 =CA 1090-257
Oral tartar inhibitor compsns. - 36938A/21
MONT 10.05.76 MONTEDISON SPA A97 D15 (A14) =GB 1581-671
Macro-crosslinked, porous, absorbing resins for water clarification - 81187Y/46
MONT 14.02.79 MONTEDISON SPA A17 D16 F01 (A97) =PT --70-826
Polyolefin fibres used in sepn. of juice or must from fruit - 60503C/35
MONT 02.05.79 MONTEDISON SPA A97 D25 (A14) =GB 2048-841
Stable zeolite suspension contg. acrylamide polymer - 82875C/47
*MORE= 10.03.78 MOSC RES DES INST D15 *SU -732-210
Water purificn. equipment for turbid natural waters, etc. - 91729C/51
*MOVI= 18.05.79 MOSC VIRUS PREPNS B04 C03 D16 *GB 2048-669
Living virus culture vaccine against canine distemper - 90796C/51
MRSC 08.04.80 MARS LTD D13 =GB 2048-642
Gelled edible products - 79347C/45
MUHL/ 09.12.76 MUHLEMANN H R D13 E13 =CA 1090-194
Sweetener compsns. contg. sorbose - 44289A/25
MULL/ 18.03.74 MULLER H D16 =DT 2560-259
Bioreactor cooling-aeration system - 65893W/40
*MULT- 28.12.76 MULTIMARQUES INC D11 *US 4237-170
High fibre content white bread - 92044C/51
MUND 24.03.77 MUNDIPHARMA AG D21 E14 #GB 1581-443
Amino-salicylate ester cpds. active against UV radiation skin damage - 72936A/41
MUND 24.03.77 MUNDIPHARMA AG D21 E14 #GB 1581-444
Amino-salicylate ester cpds. active against UV radiation skin damage - 72936A/41

NAGA/ 30.05.79 NAGATA T C04 D16 #BR 7903-386
Calcium-contg. compost prodn. - 58849B/32
NATA- 06.05.76 NATIONAL TAX ADMIN D16 =US 4237-232
Liquid culture medium free of insolubles - 55547A/31
NATT 29.05.79 NAT STARCH & CHEM CORP D17 (D13) =NL 8002-659
Modified tapioca starch forming gel in cold water - 67780C/39
*NATY 17.12.75 NABISCO INC D11 *CA 1090-193
Sweet baked goods prodn., gives enhanced sugar structure - 90203C/51
*NCAU= 09.11.77 N CAUC HORT VITICUL D14 J01 *SU -731-989
Chamber vacuum filter for vegetable materials - 91646C/51
*NENG- 00.00.78 N ENG IND LTD D15 J01 *DT 2921-506
Ion exchange resin regeneration - 90240C/51
*NESH- 03.02.77 NORTHEAST SHIPLEY D12 *US 4236-276
Clam shucking by cooling shell in liquid nitrogen - 91873C/51
NEST 27.11.74 SOC PROD NESTLE SA D13 =CA 1090-192
Extracting caffeine from coffee, tea or from aqueous extracts there of - 39971X/22
NEST 04.12.78 SOC PROD NESTLE SA D13 =ZA 7906-227
Mfr. of drink having a yoghurt taste from lactic protein - 68268C/39
NEST 05.01.79 SOC PROD NESTLE SA D13 =ZA 7907-033
Continuous solubilisation of cocoa - 53659C/31
NEST 09.03.79 SOC PROD NESTLE SA D13 =FR 2450-842
Prepn. of purified protein hydrolysate for dietetic use - 62286C/36
NEST 18.04.79 SOC PROD NESTLE SA D13 =J5 5141-160
Deacidified coffee extract prepn. - 79131C/45
NEST 17.05.79 SOC PROD NESTLE SA A97 D13 E13 =US 4237-288
Caffeine removal from oil solns. - 86634C/49
NIJH- 10.05.79 MACH NIJHUIS BV D12 X25 =EP --19-957
Automatic stunning of animals for slaughter - 85615C/48
NIOF 13.11.72 NIPPON OILS & FATS KK D13 =J4 9071-169
Natural seasoning agent prepn. - 91446C/51
*NIOF 13.11.72 NIPPON OILS & FATS KK D13 *J8 0046-696
Natural seasoning agent prepn. - 91446C/51
*NIPS 17.04.79 NIPPON SODA KK A97 B04 D16 *J5 5139-831
Enzyme adsorbent used for enzyme purificn. - 90889C/51
NIRA 30.05.79 UNITIKA KK D15 =DT 3020-608
Absorbent for removing heavy metals from soln. - 71632C/41
NIRA 30.05.79 UNITIKA KK D15 =NL 8003-115
Absorbent for removing heavy metals from soln. - 71632C/41
*NIRS 24.04.79 NISSO ENGG KK D15 *J5 5142-588
Treatment of waste water contg. agricultural chemicals - 91338C/51
NISI/ 08.05.79 NISII A D22 =GB 2048-676
Dental tool sterilisation appliance - 84759C/48
NISW 05.04.75 NISSHIN OIL MILLS KK B07 D23 E17 (D21) =J8 0046-679
High quality semisolid wax prodn. - 04568Y/03
NISW 02.08.76 NISSHIN OIL MILLS KK D13 =J5 3018-759
Fried bean-curd prepn. - 91444C/51
*NISW 02.08.76 NISSHIN OIL MILLS KK D13 *J8 0046-693
Fried bean-curd prepn. - 91444C/51
*NITS 16.04.79 NGK SPARK PLUG KK D21 L02 *J5 5140-756
Calcium phosphate based ceramic material - 91001C/51
*NITT 19.04.79 NITTO CHEM IND KK D15 *J5 5139-899
Biological denitrification of organic waste water contg. ammoniu 90909C/51
*NITY 02.05.79 NITTETSU CHEM IND KK A41 D16 E16 *GB 2048-877
Continuous prodn. of acrylamide or methacrylamide - 90822C/51
NMHB 06.12.78 NORDISCH MASCH R BAADER D12 #US 4236-275
Fish filleting machine - 22154B/12
NMHB 13.12.78 NORDISCH MASCH R BAADER D12 #CA 1090-066
Fish fillet skinning machine - 47258B/26
NMHB 27.04.79 NORDISCH MASCH R BAADER D12 #NO 7901-409
Fish filleting machine - 69556C/39
NMHB 30.04.79 NORDISCHER MASCHINE D12 #SW 7903-795
Fish filleting machine - 69556C/39
NMHB 06.12.79 NORDISCH MASCH R BAADER D12 #ZA 7906-628
Cleaning abdominal cavity of beheaded fish - 36582C/21
*NMHB 02.07.80 NORDISCH MASCH R BAADER D12 *DS 3024-953
Fish alignment device - 90223C/51
NOMU- 29.05.76 NOMURA TSUKUDANI KK D13 =J8 0046-141
Cooking white- or Taisho Azuki beans - 05681A/03
*NONA= 11.04.78 NON-ALCOHOL BEER D16 *SU -730-804
Prodn. of light beer with bitter flavour - 91471C/51
NORV- 30.11.77 NORVIDAN ENG APS D14 T06 =HU T019-030
Ring mould press for fodder pellets - 42688B/23

*OCEA- 07.06.79 OCEANOGRAPHY INT CO D15 J04 S03 *DT 3015-663
Accurate determn. of total organic carbon in water - 90402C/51
OKRE- 19.03.79 OKRESNY POD MIESTNI D15 =J5 5142-586
Nitrate removal from water by ion exchange - 84710C/48
OMNI 10.02.76 OMNIUM D ASSAINISSE D15 (D16) =CA 1090-316
Biological filter support - 36300Y/21
OREA 21.04.77 L'OREAL SA A14 D21 (A96) =US 4237-253
Methacrylate based copolymers - 76295A/43
*OREA 13.07.78 L'OREAL SA A25 B03 D21 E13 (A87 A97) *EP ---7-097
Surface active cyclic polyether derivs. - 90506C/51
OREA 13.07.78 L'OREAL SA A25 B03 D21 E13 (A87 A97) =FR 2430-944
Surface active cyclic polyether derivs. - 90506C/51
OREA 13.07.78 L'OREAL SA A25 B03 D21 E13 (A87 A97) =J5 5015-478
Surface active cyclic polyether derivs. - 90506C/51
OREA 26.04.79 L'OREAL SA D21 E24 =DK 8001-690
Substd. meta-phenylene di:amine cpds. - 78918C/45
OREA 07.06.79 L'OREAL SA A25 D21 E16 (A96) =BE -883-700
Surface-active fluorinated oligomers - 90499C/51
*OREA 07.06.79 L'OREAL SA A25 D21 E16 (A96) *DT 3021-447
Surface-active fluorinated oligomers - 90499C/51
ORIO- 30.04.79 ORION-YHTYMA OY ADL B04 D16 J04 S03 =GB 2049-185
Enzyme immunity determn. e.g. in testosterone deter. - 82874C/47
ORIO- 30.04.79 ORION-YHTYMA OY B04 D16 J04 S03 =SW 8003-206
Enzyme immunity determn. e.g. in testosterone deter. - 82874C/47
ORON- 18.05.79 ORONZIO DE NORA IMP D15 E36 J03 #GB 2048-942
Halogenation of water - 82412B/45
OSAK- 23.04.79 OSAKA SANSO KOGYO K A97 D22 J01 =J5 5142-523
Deodorisation of waste gas by contact with hypochlorite soln. 84965C/48

PAPM 19.04.79 PAPER MFRS CO A92 D22 =GB 2048-766
Package for sterilised medical prod. - 30879C/17
PASE 30.05.79 PASSAVANTW MICHELBACHER D15 =NL 7908-875
Sepg. tank esp. for flotation of fat from waste water - 71622C/41
*PAUL/ 01.06.79 PAULL N W D22 S05 *EP --20-157
Sterilising U-trap of sink in hospital - 90677C/51
PECH 13.08.75 PHILAGRO C02 D22 E13 =HU T019-091
Bactericidal compsn. - 24506Y/14
*PEPI- 05.03.79 PEPIN FILSAIN G ETA D16 *FR 2450-872
Removing tartar from wine by low temp. crystallisation - 90761C/51
*PERM- 24.11.78 PERMO SA D15 J04 T01 (T06) *US 4237-538
Resin bed water softener - 92108C/51
PERS 28.04.78 PERSONAL PRODUCTS CO D22 =ZA 7902-041
Catamenial tampon with increased absorptive capacity - 79123B/44
PETE 23.01.76 PETERS C AG C03 D13 J04 (J02) =DS 2602-454
Mixing of granular materials with treatment liquids - 36310Y/21
PEUS/ 29.01.79 PEUSER M F X D15 J01 M11 =NO 8002-849
Effluent treatment of electroplating baths - 43314C/25
PFIZ 23.03.77 PFIZER INC A14 D15 (A97) =GB 1581-802
Insoluble granular maleic anhydride terpolymers for scale control 04071A/02
PFIZ 04.12.78 PFIZER INC A14 D15 (A97) =ZA 7906-550
Water soluble flocculant - 43704C/25
*PHIP 05.06.79 PHILLIPS PETROLEUM CO B04 D16 *EP --19-937
Prepn. of alcohol oxidase solns. - 90581C/51
*PHYL- 03.01.79 PHYLAXIA OLTOANYAG-ES TA D16 (D13) *HU T019-028
Prepn. of endo-polygalacturonase enzymes - C/51

KMA- 07.04.77 VEB PKM ANLAGENBAU C03 D15 (C04 D13) = HU T019-06
Biological treatment of liquid manure - 76467A/43
KMA- 19.04.79 VEB PKM ANLGENBAN L D15 *J5 5142-598
Stabilisation of excess sludge - C/51
LAN/ 29.05.79 PLANTIKOW K U D15 *DT 2921-728
Sea-water desalination - 90264C/51
LAN= 16.01.79 PLANT BAC PREP MICR C03 D13 (D16) *SU -731-938
Feeding mixt. for gypsy moth caterpillars used in virus prodn. - 91617C/51
OKK 12.02.76 POLA KASEI KOGYO KK A96 D21 E37 G01 = J8 0046-366
Cosmetics contg. glossy mica pigment - 69888Y/39
ROC 04.06.76 PROCTER & GAMBLE CO A87 D25 E19 F06 = CA 1090-057
Textile softening compsns. for adding to rinsing baths - 09275Y/06
ROC 13.11.78 PROCTER & GAMBLE CO D25 E19 *J5 5112-371
Fibre softening compsn. - 90862C/51
ROC 15.12.78 PROCTER & GAMBLE CO D25 E19 *J5 5115-499
Antistatic detergent compsn. for textiles - 90864C/51
ROC 23.05.79 PROCTER & GAMBLE CO D21 E19 *EP --19-970
Conditioning shampoo compsn. - 90592C/51
ROC- 01.12.78 PROCESS ENG CO C04 D16 E17 (D13) = ZA 7906-438
Ethanol prodn. from cereals with by/product recovery - 66495C/38
ROC- 13.03.79 PROCESS ENG CO SA C03 D13 = HU H002-577
Gum-like confectionery prepn. from date-pulp - 68055C/39
ROD- 04.12.78 PROD PROCEDES FR IN D12 = ZA 7906-554
Process and installation to strip detached feet of butcher(ed) bovine - 41988C/24
ROD- 04.12.78 PROD PROCEDES FR IN D12 = ZA 7906-557
Process and installation to strip detached feet of butcher(ed) bovine - 41988C/24
ROD- 04.12.78 PROD PROCEDES FR IN D12 = ZA 7906-558
Process and installation to strip detached feet of butcher(ed) bovine - 41988C/24

QPPP 31.10.79 Q.P. CORP D15 *ZA 7905-843
Peeling shells of boiled eggs - C/51

AIK- 20.04.79 SHIN-RAIKA DENSEN KK D15 *J5 5142-535
Water oxygenating unit - 91326C/51
AUL- 24.04.79 RAU W LEBENSMITTELW D23 = GB 2048-928
Crystalline high fatty acid tri: glyceride prepn. - 79058C/45
EGC 24.05.79 UNIV OF CALIFORNIA B04 D16 *EP --20-251
DNA transfer vector comprising genome of non passageable virus - 90704C/51
EGC 01.06.79 UNIV OF CALIFORNIA B04 D16 *EP --20-147
DNA transfer vector - 90673C/51
EGC 01.06.79 UNIV OF CALIFORNIA B04 D16 = PT --71-323
DNA transfer vector - 90673C/51
ESE 31.08.72 RESEARCH CORP B04 D16 S03 S05 = DT 2366-372
Specific neisseria gonorrhoeae antigens - 20506V/11
HEO- 08.03.79 RHEON AUTO MACH CO D11 = FR 2450-562
Aligner for trapezoidal dough pieces - 68053C/39
HON 10.07.75 RHONE-POULENC INDUSTRIES D15 E33 (D21) = DS 2630-8
Solns. of basic aluminium hydroxy chlorides - 04310Y/03
HON 04.07.77 RHONE-POULENC INDUSTRIES D23 E17 = US 4237-072
Optically active citronellal synthesis - 02383B/02
CH- 28.01.77 RICH PRODUCTS CORP D13 *US 4237-146
Microbiologically stable food dressing - 92029C/51
CT 25.08.77 RICHTER GEDEON VEGY C03 D15 (D13 D15) = HU T019-061
Sewage sludge used to mfr. nutritious animal feed - 16007B/09
KA 22.04.70 RIKAGAKU KENKYUSHO D16 (D25) = J8 0046-711
Alkaline protease enzyme from bacillus - 89665R/48
XO= 10.06.77 RIGA KOSMOS LEATHER RES D18 *SU -730-810
Treatment of elastic footwear cow-hide - 91475C/51
ND/ 08.08.79 RINDERLE K D11 *BE -884-695
Mfg. dessert biscuits, ginger bread etc. in baking mould cavities - 90174C/51
DL/ 29.10.77 RODLER M D16 (D13) *HU T019-116
Rapid determination of Salmonella in biological media - C/51
HG 30.05.79 ROHM & HAAS FRANCE D17 *EP --20-124
decationising aq. sugar solns. - 90660C/51
SS/ 24.04.79 ROSSI J C03 D13 = DK 8001-738
Detoxicating and/or taste-improving plant seed oil feedstuff treatment - 81117C/46
US 20.01.72 ROUSSEL UCLAF B01 C03 D13 = J8 0046-689
Increasing egg yields - 44628U/32
ON 20.04.79 RYONICHI KK C03 D22 (D15) *J5 5141-142
Controlling red tide - 91052C/51
ON 20.04.79 RYONICHI KK D15 E34 *J5 5142-587
Preventing generation of red water by abnormal plankton growth etc. - 91337C/51

A- 27.04.76 SAKATA SHOKAI LTD A82 D23 E14 G02 (A60 A97) = J8 5-436
Rand oil prepn. - 88966Y/50

SAKA/ 10.11.77 SAKAI T D16 = J8 0046-157
Pectin prodn. - 53268B/29
SAKB 12.08.77 OTSUKA KAGAKU YAKUHIN D23 E15 = US 4237-308
2-Cyclopentenone derivs. with jasmine smell - 14429B/08
*SAKI 25.04.79 SAKAI CHEMICAL IND KK D15 *J5 5142-589
Industrial waste water purificn. - 91339C/51
SANE 04.10.77 SANEI CHEM IND KK D13 E24 = J8 0046-147
Preventing fading of paprika pigment - 43118B/23
SANO 19.02.74 SANDOZ AG C01 D15 E12 = HU T019-013
Algicidal and herbicidal copper complexes - 64203W/39
*SAWO- 08.03.79 SOUTH AFR WOOL BOAR C03 D13 *FR 2450-808
Blocking of essential amino acids with maleic or citraconic anhydride 90757C/51
SAWO- 08.03.79 S AFR WOOL BOARD C03 D13 = GB 2048-848
Blocking of essential amino acids with maleic or citraconic anhydride 90757C/51
SAWO- 04.03.80 SOUTH AFRICA WOOL B C03 D13 = ZA 8001-251
Blocking of essential amino acids with maleic or citraconic anhydride - 90757C/51
SCGR 15.02.78 SOC CHIM GRANDE PAROISSE A25 D22 E16 = EP G004-211
Prepn. of 2-nitro-2-methyl-propanol from 2-nitro propane - 68495B/38
SCHD 15.11.78 SCHERING AG B01 D16 = US 4237-220
9-Alpha-hydroxy-4-androstene-3,17-di:one prodn. - 73674C/42
*SCHD 31.05.79 SCHERING AG B04 D16 *EP --20-290
Protein prepn. by selective enzymatic cleavage - 90721C/51
SCHL- 22.03.77 SCHLATTER H A AG D15 H05 J01 = CA 1090-490
Decontaminating organically polluted soil and underground water - 53525A/30
SCHO/ 30.10.78 SCHOLE M L B05 D21 = DK 8002-791
Water-contg. dentifrice for removing or preventing calculus - 87517B/48
*SCHW- 07.06.79 SCHWAN-STABILO SCHW D21 *DT 2923-080
Prodn. of solid cosmetic products - 90350C/51
SEAR 01.06.79 SEARLE G D & CO B04 D16 = NL 8003-171
Plasmids useful as vectors for eucaryotic DNA - 88368C/50
*SEEW- 05.06.79 SEEWER MASCH AG D11 *DT 2922-703
Dough stretching frame - 90322C/51
*SEIK- 01.06.79 SEIKEN KAI FOUND D15 *BR 7903-477
Purification of water or aq. materials - C/51
*SEMI= 18.07.78 SEMIPALATINSK BR D12 *SU -731-942
Conveyor for transporting trolleys contg. loads, e.g. meat carcasses 91620C/51
SERN/ 04.05.78 SERNAGIOTTO R D16 = US 4236-445
Convergent twin bands filter press partic. for pressing grapes - 13387C/08
*SHEN/ 28.03.78 SHENDEROV L Z D14 J04 *SU -731-984
Heat- and mass-transfer column for gas-liquid systems - 91641C/51
SHID 27.08.75 SHINTO PAINT KK C01 D22 E12 F09 (C03 E15) = J8 0046-287
Insecticidal compsn. for wood - 26277Y/15
*SHOE= 10.06.77 SHOE IND RES INST D18 *SU -730-810
Treatment of elastic footwear cow-hide - 91475C/51
*SHVE/ 28.01.77 SHVETSOV V N D15 *SU -732-215
Purificn. of domestic sewage by aeration and clarification - 91734C/51
SINA- 18.05.79 SINATIN SA D23 (D16) = PT --71-259
Prepn. of oak flavour used for ageing alcoholic prods. - 64236C/37
SIRE/ 30.11.78 SIREN M J A88 D18 J01 = J5 5141-186
Filter contg. active material and carbohydrate polymer - 43680C/25
SIST- 18.05.79 SISTEMAS NATURALES D23 (D16) = PT --71-259
Prepn. of oak flavour used for ageing alcoholic prods. - 64236C/37
SMIK- 18.08.76 SMITH KLINE RIT A88 B04 C03 D16 = GB 1581-776
Neurotoxin prepd. from pathogenic Escherichia coli - 13983A/08
SODA- 29.07.77 SODASTREAM LTD D15 = EP G000-813
Portable water carbonator for sparkling drinks - 84161A/47
SOMA- 16.05.79 SOMAT CORP D15 = GB 2048-714
Refuse shredder - 86575C/49
*SOMM/ 05.06.79 SOMMER H D12 *DT 2922-714
Meat salting machine - 90323C/51
SONT/ 05.03.79 SONTHEIMER C G D13 = FR 2450-675
Rotary food slicing disc - 68016C/39
SONT/ 05.03.79 SONTHEIMER C G D13 = GB 2048-655
Rotary food slicing disc - 68016C/39
SPEZ- 07.06.79 SPEZIALTRIKOT KARL D22 F07 = DT 2952-105
Compression stocking for amputated stump - 73528C/42
SPIE- 28.08.79 SPIE-BATIGNOLLES D15 J01 X15 #ZA 7904-543
Desalination of sea-water etc. by heat of solar radiation - 33200C/19
STAU 03.02.75 STAUFFER CHEMICAL CO D13 = CA 1090-195
Process cheese contg. partly soluble modified whey solids - 61912X/33
STAU 30.03.76 STAUFFER CHEMICAL CO D11 E33 = CA 1090-090
Potassium-modified sodium aluminium phosphate - 70675Y/40
*STEN/ 17.01.79 STENSON T K D22 F05 *US 4236-470
Sewing corpses with needle-latching tongs - 91897C/51
STIL 09.09.77 STIERLEN-MAQUET AG D22 = EP G001-048
Disinfecting hospital operating theatres and other rooms - 22368B/12
STOP- 30.11.78 STOPPANI L SPA A41 D18 E13 G06 (A60 E31) #US 4237-301
Pyridine di:carboxylic acid prepn. from di:methyl pyridine - 25990B/14

*STRI 04.11.74 LELAND STANFORD UNI B04 D16 *US 4237-224
Incorporation of foreign genes into microorganisms - 92062C/51
*SUBI/ 05.11.79 SUBIK J D13 *CS 7907-516
Antifungal protection of surface of edible products C-51
SULA 24.02.78 SUOMEN LAAKETEHDAS B06 D13 =FR 2450 568
Compsns contg. desired sodium potassium magnesium calcium ratios - 49035B/27
*SULZ 31.05.79 GEBRUDER SULZER AG D15 J01 *EP --19-655
Temporarily locating connecting elements in filter bed floor - 90512C/51
*SULZ 31.05.79 GEBRUDER SULZER AG D15 *EP --19-656
Backflushing water filter plant - 90513C/51
*SULZ 31.05.79 GEBRUDER SULZER AG D15 *EP --19-657
Filter bed drainage tube nozzle - 90514C/51
*SULZ 31.05.79 GEBRUDER SULZER AG D15 *EP --19-658
Water filter bed tank - 90515C/51
SUMO 19.07.76 SUMITOMO CHEMICAL KK D21 L02 =J8 0046-731
Baked ceramic-metal material for crowning teeth - 22545A/12
SUMO 25.12.78 SUMITOMO CHEMICAL KK C03 D22 E14 F09 =ZA 7907-024
Wood preservative contg. alpha cyano-3 phenoxy:benzyl ester - 46544C/27
SUNZ 22.08.73 SUN STAR HAMIGAKI K B04 D13 E19 =J5 0046-871
Extracting sweetener from Hydrangea serrata, Stevia etc. - 91445C/51
*SUNZ 22.08.73 SUN STAR HAMIGAKI B04 D13 E19 *J8 0046-695
Extracting sweetener from Hydrangea serrata, Stevia etc. - 91445C/51
*SUZU/ 24.04.79 SUZUKI Z D22 E31 (E34) *J5 5141-246
Deodorant composition - 91065C/51
SWAH 10.08.79 SCHWARZKOPF H GMBH D21 E24 =BE -884-696
Dyeing human hair in yellow to brown shades - 41583C/24

TABA- 29.07.75 FABRIK DE TABAK REU D18 =SU -731-879
Synthetic tobacco derived from vegetable matter slurry - 11532Y/07
TAIH- 06.08.76 TAIHEIYO KOGYO KK D13 =J5 3020-442
Heat sterilisation of foodstuff at elevated pressure - 91448C/51
*TAIH- 06.08.76 TAIHEIYO KOGYO KK D13 *J8 0046-702
Heat sterilisation of foodstuff at elevated pressure - 91448C/51
*TAIY 19.04.79 TAIYO YUSHI KK D13 *J5 5141-174
Whippable synthetic cream prepn. - 91054C/51
*TAIY- 19.04.79 TAIYO KORYO KK D23 *J5 5141-243
Slow release perfume gel compsn. - 91062C/51
TAKE 29.03.73 TAKEDA CHEMICAL IND KK B02 D16 =J8 0046-719
Purine derivs prepn - 26544W/16
*TAKE 23.04.79 TAKEDA CHEMICAL IND KK D12 E13 *J5 5141-177
Meat treating agent comprising cereal embryo and ascorbic acid cpd. - 91055C/51
*TAKE 05.06.79 TAKEDA YAKUHIN KOGY B02 C02 D16 *EP --19-934
Antibiotic C-15003 PND - 90580C/51
*TAKI- 19.04.79 TAKI KAGAKU KOGYO K C04 D16 *J5 5142-085
Ground improving agent - 91257C/51
*TATL 24.05.79 TATE & LYLE LTD D25 E13 *EP --20-122
Sucrose fatty acid ester(s) prepn. - 90658C/51
*TATL 24.05.79 TATE & LYLE LTD D22 E17 *GB 2048-670
Barrier cream contg. sucrose ester surfactant - 90797C/51
TATL 24.05.79 TATE & LYLE PATENT D25 E13 =PT --71-286
Sucrose fatty acid ester(s) prepn. - 90658C/51
TEIJ 24.04.79 TEIJIN KK A23 B04 D16 F01 (A94 A96) =J5 5142-717
Aromatic polyamide core in sheath fibre - 82955C/47
*TEJI- 13.05.77 TEJIPARI TROSZT D13 *HU T019-026
Prepn. of easily digestible protein concentrate from milk - C/51
*TEMO- 21.05.79 TEMOVA ETAB A83 D22 F07 S05 (X27) *EP --19-822
Knitted therapeutic vest - 90551C/51
*TERU- 04.06.79 TERUMO CORP D16 *EP --19-940
Microorganism culturing tube - 90583C/51
*THEM/ 06.08.79 THEMY C D D15 E36 J03 X25 *US 4236-992
Brine electrode having long life - 91962C/51
TKRT- 13.04.79 TKR TABAK FORSCHNUG D18 =US 4236-533
Tobacco compsns. with reduced emission of toxic cpds. - 75563C/43
TOAG 23.12.74 TOA GOSEI CHEM IND LTD B04 D16 =J8 0046-715
Novel antibiotic R41 prodn. - 60744X/32
TOAN- 01.09.73 TOA NUTRITION CHEM B04 D16 =J8 0046-713
Antibiotic, R4H. - 64692W/39
*TOKU 19.04.79 TOKUYAMA SODA KK D16 *J5 5141-193
Refining enzyme soln. - 91058C/51
*TOKU 19.04.79 TOKUYAMA SODA KK D16 E16 J04 *J5 5141-199
Quantitative determination of spermidine in body fluid or extract - 91060C/51
TORA 27.10.75 TORAY IND INC B04 D16 =J5 2054-019
Interferon prodn. - 91449C/51
*TORA 27.10.75 TORAY IND INC B04 D16 *J8 0046-720
Interferon prodn. - 91449C/51
TOSE- 14.05.79 TOYO SEIYAKU KASEI D21 E31 #GB 2048-666
Compsn. for preventing tooth corrosion - 55378B/30
TOUR/ 04.12.78 TOURNIER C D12 =ZA 7906-422
Machine to strip skin from butchered animal heads and feet - 68267C/39
TOWN 04.12.78 TOWNSEND ENG CO D12 #DK 8000-850
Machine to inject brine, etc. into meat - 20059B/11
TOWN 25.05.79 TOWNSEND ENG CO D12 =PT --71-227
Injecting fluid esp. brine into meat and fish for curing - 69605C/40
TOWN 06.06.79 TOWNSEND ENG CO D12 =DT 3021-260
Cutting sausage links suspended from slotted hook conveyor - 8807
TOXN 28.04.78 TOYO JOZO KK A96 B04 D16 E13 (S03 U11) =US 42 267
Carrier-bound di:sulphide cpds. of benzothiazole and pyridine N/c 82813B/46
TOXN 17.06.78 TOYO JOZO KK B04 D16 E17 S03 (S05) =US 4237 22
Lactate oxidase enzyme specific to L-lactic acid - 01925C/02
*TOXN 06.06.79 TOYO JOZO KK B04 D16 *DT 3020-646
Microbial glycero:kinase enzyme - 90461C/51
*TOYJ 29.05.79 TOYO SODA MFG KK D22 E33 (D15) *DT 3020 235
Calcium hypochlorite compsn. - 90438C/51
TOYW 06.05.71 TOYOTA CENT RES & DEV D15 =J4 7044 258
Kerosene and wax contg. waste water treatment - 91424C/51
*TOYW 06.05.71 TOYOTA CENT RES & DEV D15 *J8 0046-236
Kerosene and wax contg. waste water treatment - 91424C/51
*TROF/ 11.11.73 TROFIMOV L I D15 *SU -731-982
Liquid distributor for falling-film evaporator - 91639C/51
*TROF/ 27.04.77 TROFIMOV L I D15 J01 *SU -731-983
Falling film evaporator - 91640C/51
TROM/ 09.04.79 TROMMSDORF K U D15 T06 X25 =EP --19-704
Water purification using precipitant - 75522C/43
TSIL 13.06.74 TOSHIBA SILICONE KK A26 D21 (A96 A97 D25) = 0046-416
(N)-Acylamino acid-modified polysiloxane - 23922A/13
TUCH- 24.04.79 TUCHENHAGEN O GMBH D16 T05 X25 =DK 8001-733
Monitoring of cleaning equipment in fermenting vat - 64215C/37
*TYUR/ 02.02.77 TYURIN T S D16 *SU -732-385
Grape must clarification unit - 91814C/51

UGIN 01.09.76 PROD CHIM UGINE KUHLMANN D25 E19 F06 =C 1090-370
Alpha:acyloxy-(N,N')-di:acyl:malonamide cpds. - 15882A/09
UGIN 24.04.79 PROD CHIM UGINE KUH D25 E33 =DK 8001-731
Semi-continuous prodn. of zeolite type-A - 77063C/44
*UKAT 09.05.79 UK ATOMIC ENERGY AUTH A88 D15 J01 *GB 2049-15
Fluid tight joint - 90849C/51
*UNBI- 15.05.79 UNITED BISCUITS UK A97 D13 *GB 2048-756
Mould with flexible wall for confection mfr. - 90812C/51
UNIC 18.04.79 UNION CARBIDE CORP D15 =BR 8002-348
Aeration of liquid-solid mixture - 79266C/45
UNIC 19.04.79 UNION CARBIDE CORP A88 D15 J01 (A25) #J5 513 806
Filtration removal of suspended solids from liquid - 59716B/32
*UNIC 04.06.79 UNION CARBIDE CORP D12 T06 X25 *BE -883-600
Machine to fill tubular sausage casings from collapsed concertina fo 90143C/51
UNII 08.03.79 UNIV OF ILLINOIS B04 C03 D16 =FR 2450-609
Vaccine for prevention of equid herpes virus type 1 infection - 66428C
UNIL 16.11.70 UNILEVER NV D13 =DT 2167-271
Imitation fruit prepn - 33854T/21
UNIL 22.03.76 UNILEVER NV C03 D13 E19 =GB 1581-744
Diet additive contg. acyl lactylate emulsifier - 72773Y/41
UNIL 26.03.76 UNILEVER LTD D13 (D12) =CA 1090-075
Protein fibres prepd. from casein and heat coagultable prote 68869Y/39
UNIL 18.06.76 UNILEVER NV D13 (D16) =GB 1581-541
Cheese by membrane filtration of milk then fermenting concentra 90017Y/51
UNIL 01.11.76 UNILEVER LTD D25 E34 (E33) =CA 1090-052
Particulate alkali metal perborate coated with calcium salt - 32044A/1
UNIL 12.12.77 UNILEVER LTD A96 D21 =CA 1090-258
Germicide free antibacterial mouth-wash - 35177B/18
UNIL 24.04.78 UNILEVER NV D13 =ZA 7901-935
Hardened stabilised ice cream similar to soft serve type - 79529B/44
UNIL 25.08.78 UNILEVER NV C03 D13 =PT --70-116
Stabilised milk substitutes for young animals - 20667C/12
UNIL 03.11.78 UNILEVER NV A87 D25 E17 F06 =PT --70-402
Storage stable fabric softening compsn. - 34618C/20
UNIL 17.11.78 UNILEVER NV D25 E16 =PT --70-463
Aq. liq. formulation for depositing perfumes on fabrics - 38732C/22
*UNIL 06.04.79 UNILEVER LTD D21 *EP --19-996
Multicoloured extruded detergent bar - 90605C/51
*UNIL 28.05.79 UNILEVER NV D14 T06 X25 *NL 7904-155
Extrusion press producing cattle feed pellets - 91458C/51
UNIL 03.04.80 UNILEVER NV D25 E11 =GB 2048-930
Bleaching compsns. contg. peroxy cpd. and activator - 75321C/43
*UNIL 11.04.80 UNILEVER NV A97 D25 *GB 2048-931
Dimensionally stable detergent bar - 90829C/51
*UNIW 27.10.77 UNIV OF WASHINGTON B04 D16 *US 4237-219
Radioimmunoassay of creatine kinase B isoenzymes - 92061C/51
UNVO 19.08.76 UOP INC D15 J01 =GB 1581-445
Deionizing resin bed regeneration via distribution conduit - 23475Y/13
*UNVO 13.11.79 UOP INC D16 (D17) *US 4237-231
Glucose isomerase purificn. - 92065C/51

R

65-R D
7007-854 R48+
2026-092 R49
7003-484 S09
2052-484 S30
3002-794 U05
1308-238 U09
-923-833 U16
5016-435 W28
4052-262 Y41+
8018-594 A28+
2026-092 A32+
0046-711 C51

S

45-S D
2109-896 S43
6003-988 S47
7102-152 T06
0046-707 C51

T

001-T BDE
2135-246 T05
2135-246 U17
3787-287 V05
1361-413 V30
-952-051 V33
0046-717 C51

354-T D
-775-405 T21
2156-067 T22
7115-640 T22
7011-970 T26
2114-706 T43
7107-628 U31
1369-199 V40
1369-198 V40
-563-125 W30
7404-869 Y09
1010-712 Y22+
1012-833 Y28
7700-494 Y31
2156-067 C46
2167-271 C51

U

-86-U D
2130-880 U07
7025-063 C51+
0046-201 C51+

20-U DJ
2156-578 U23
3817-319 V26
2156-578 C51

8-U BCD
2303-026 U32
-794-137 U32
7300-746 U32
2168-207 U46
8080-366 V01
7300-431 V16
-104-708 V24
3845-208 V45
1415-093 W48
-569-425 X02
-621-305 B25
0046-689 C51

5-U ADEF
2209-559 U38
7301-240 U38
2174-095 U51
3100-389 V09
386-042 W10
7301-741 W44
919-111 W48
588-879 Y29
209-559 C51

4-U BCD
162-175 U40
374-925 V47
011-171 X16
505-895 X28
210-067 X32
501-664 X48

J4 8062-746 U45
SU -731-889 C51

64100-U DE
DT 2215-952 U43
NL 7304-265 U43
BE -797-576 U43
BE -797-376 U43
FR 2178-964 V02
J4 9009-534 V14
GB 1359-454 V28
CH -582-217 X52
DS 2215-952 A10
J5 5142-778 C51

75253-U D
US 3774-524 U49+
NL 7315-441 W22
DK 7305-750 W29
GB 1407-759 W39
DT 2356-879 W42+
CA 1017-618 Y40+
NL -159-570 B13+
DS 2356-879 C51

V

03489-V DE
BE -802-560 V02+
NL 7310-318 V07+
DT 2337-262 V08+
FR 2193-874 V17
FR 2193-873 V17
GB 1379-186 W01+
ZA 7304-355 W14
CH -587-909 Y27
CA 1013-506 Y30
CA 1015-507 Y35
US 4049-558 Y39
SW 8004-647 C51+

14152-V D
J4 8022-678 V08
J8 0046-708 C51

20506-V BD
NL 7312-082 V11+
BE -804-346 V11+
DT 2343-264 V13+
FR 2197-559 V22+
GB 1378-103 V51+
J4 9062-625 V34
J4 9092-223 V45
SW 7611-560 Y13+
CH -595-633 A12+
DK 7705-507 A13+
DK 7705-508 A13+
DK 7705-506 A13+
CH -604-720 A41+
CA 1052-268 B16+
DT 2366-372 C51+

66558-V DH
DT 2408-383 V38
FR 2219-224 V51
US 3891-503 W27
J4 9109-576 C50
J8 0046-710 C51

74291-V DJ
BE -813-285 V43
NL 7403-237 V43
NO 7400-858 V48
SW 7403-235 V49
DT 2317-563 V49
DK 7401-329 V50
FR 2224-542 W05
DL -111-692 W23
J5 0052-106 W27
US 3950-371 X17
IL --44-577 Y12
GB 1470-825 Y16
CH -590-916 Y36
SU -568-359 A25
CA 1037-490 A37
CS 7402-444 A41+
DS 2317-563 B09
RU --65-793 C22
HU T019-043 C51

W

14719-W DE
DT 2437-848 W09
NL 7409-042 W09
J5 0037-721 W23
US 3907-640 W40
GB 1425-308 X08
CA 1029-745 A18+
J8 0046-716 C51

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CA 1024-087 A05
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26544-W BD
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30925-W DE
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NL 7412-440 W19+
FR 2248-022 W30+
J5 0070-534 W32+
US 3931-306 X03+
GB 1463-567 Y05+
CA 1018-540 Y42+
CH -613-847 B45+
SU -731-951 C51+

48485-W BDE
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57823-W BD
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J8 0046-714 C51

64203-W CDE
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J5 0117-921 W46
FR 2260-950 W49
ZA 7501-041 X44
HU T013-089 Y19
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SU -559-614 A34
CH -604-509 A41
HU T019-013 C51

64692-W BD
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J8 0046-713 C51

65893-W D
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SW 7502-950 W45+
FR 2264-869 X02+
CH -572-978 X15
US 4073-696 A09+
OE 7700-870 B13
IT 1034-235 B51+
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X

15261-X ADF
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IT 1044-659 C26
CA 1090-071 C51

30353-X AD
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SW 7511-164 X21
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GB 1520-757 A32
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CA 1090-074 C51

39971-X D
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NL 7513-874 X24+
SW 7512-893 X28+
NO 7503-925 X29+
DT 2548-916 X34+
DK 7505-289 X35+
DL -121-266 X36+
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FR 2292-433 X41+
PT --64-438 X41+
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ZA 7507-059 Y01
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SU -576-897 A36
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CH -604-552 A41+
IL --48-450 B08
CA 1090-192 C51+

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J5 2117-482 Y45+
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CH -611-646 B29+
IL --49-136 B34+
CS 7601-983 C39+
SU -731-903 C51+

60744-X BD
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J8 0046-715 C51

61912-X D
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BE -838-139 X34+
NL 7600-447 X34+
SW 7601-083 X38+
NO 7600-307 X39+
J5 1101-165 X43+
FR 2298-956 X49+
GB 1525-791 A38+
CH -618-585 C39+
CA 1090-195 C51+

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GB 1472-683 Y18
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CA 1076-366 C20+
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76209-X DJ
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SW 7503-588 X46
FR 2305-226 Y04
US 4046-515 Y37
GB 1509-642 A18
DS 2612-568 C51

79618-X D
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J5 2105-295 Y41+
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SU -730-805 C51

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CA 1090-259 C51

91788-X BD
NL 7605-169 X49
DT 2621-215 X50
GB 1493-993 Y49
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CA 1065-672 B47
US 4237-118 C51+

96238-X ABD
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CA 1088-008 C46+
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04568-Y BDE
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J8 0046-679 C51+

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DK 7603-203 Y15+
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CA 1090-292 C51+

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NL 7607-766 Y06+
DT 2631-114 Y07+
FR 2318-267 Y17
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SF 7701-773 A08
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GB 1550-206 B32+
NL -162-152 B48+
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CA 1090-057 C51

11532-Y D
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GB 1497-514 A02
US 4083-371 A22
CA 1043-215 A50
SU -731-879 C51

23475-Y DJ
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GB 1581-445 C51

24506-Y CDE
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BR 7605-303 Y34
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GB 1504-477 A12
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SU -677-628 C14
HU T019-091 C51

26277-Y CDEF
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J8 0046-287 C51

27585-Y ADEF
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31888-Y BCDE
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J8 0046-697 C51

34776-Y AD
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GB 1509-050 A17+
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CA 1090-083 C51+

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CA 1090-316 C51

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NL 7700-538 Y32
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SF 7700-131 Y42
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DK 7700-243 Y46
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CH -618-898 C39
DS 2602-454 C51

43426-Y BD
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DK 7605-701 Y36
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67540-Y AD
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FR 2354-974 A13
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71742-Y BD
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J8 0046-158 C51

72773-Y CDE
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SW 7703-227 Y44
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DK 7701-226 Y50
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GB 1581-744 C51

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81187-Y AD
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FR 2392-043 B09
GB 1581-671 C51

86638-Y AD
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NO 7702-720 A12
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88966-Y ADEG
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J8 0046-436 C51

90017-Y D
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IL --52-594 C47
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J5 3015-398 A13
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GB 1581-460 C51

10256-A BD
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NL 7708-473 A08+
SW 7708-795 A11+
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DK 7703-476 A15+
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23922-A AD
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36938-A BDE
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42326-A ADEJ
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US 4237-232 C51+

59472-A DE
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US 4236-550 C51

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J5 3117-627 A46
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66158-A D
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J8 0046-218 C51

72936-A DE
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PT --66-344 A16
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SW 7703-296 A44+
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SF 7700-888 A51+
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76295-A AD
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NL 7804-234 A45+
J5 3132-091 B01+
BR 7802-490 B02+
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FR 2419-947 C01+
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HU T019-006 C51

78947-A BD
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81862-A D
US 4122-953 A45
GB 1581-635 C51

84161-A D
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DK 7803-351 B11+
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PT --68-320 B20+
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10185-B BDE
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US 4237-228 C51

10222-B D
DT 2831-749 B06+
NL 7807-731 B06+
BR 7804-635 B23+
US 4234-997 C50+
CA 1090-067 C51+

10899-B D
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US 4237-230 C51

13205-B ADHJ
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14429-B DE
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US 4237-308 C51

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J5 4050-099 B22
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SW 8005-537 C42+
SF 7900-646 C48+
GB 2048-049 C50+
DK 8000-850 C51+

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22154-B D
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27753-B D
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39244-B ADJ
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US 4236-987 C51

42688-B D
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GB 2032-246 C19+
DK 7805-305 C23
SW 7811-406 C23
NO 7803-748 C26+
FR 2440-694 C35+
US 4222-152 C40+
CA 1090-066 C51+

49035-B BD
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NL 7901-469 B37
DT 2906-697 B37
GB 2015-863 B38
DK 7900-737 B41
NO 7900-635 B41
SW 7901-586 B41
BR 7901-216 B42
J5 4126-778 B45
SF 7800-627 B47
SF 7902-577 C04+
SF 7902-578 C04+
SF 7902-579 C04+
SF 7902-580 C04+
SF 7902-581 C04+
SF 7902-582 C04+
SF 7902-583 C04+
ZA 7900-796 C13
FR 2450-568 C51

49528-B BDE
GB 2010-825 B27
DT 2855-424 B28
BE -873-631 B30
J5 4088-240 B34
FR 2412-559 B40
US 4237-269 C51

50680-B D
SW 7708-243 B27
SW 7708-243 B09
DT 2900-993 C31+
US 4236-910 C51+

51129-B BCDE
DT 2855-348 B28
GB 2011-893 B29
J5 4088-241 B34
FR 2412-560 B40
US 4237-272 C51

53268-B D
J5 4070-495 B29
J8 0046-157 C51

54429-B CD
US 4160-038 B29
GB 1557-390 B50+
CA 1090-191 C51+

54811-B BD
DT 2840-670 B30
SW 7813-066 B32
SF 7803-930 B39
FR 2412-546 B40
DL -138-223 C05
J5 5009-791 C09
US 4237-291 C51

55378-B DE
J5 4075-192 B30
DS 2920-909 C40+
GB 2048-666 C51+

58849-B CD
J5 4080-879 B32
BR 7903-386 C51+

59716-B ADJ
US 4162-216 B32
ZA 7901-805 C21+
DT 2916-121 C44+
BR 7902-433 C46+
GB 2047-105 C48+
J5 5139-806 C51+

60045-B D
DT 2804-430 B33
GB 1581-615 C51+

60543-B D
J5 4084-072 B33
J8 0046-148 C51

61669-B ABD
DT 2806-098 B34
BE -874-162 B35
NL 7901-152 B35
GB 2014-584 B35
J5 4119-025 B43
BR 7900-893 B46
FR 2416-723 B47
US 4237-243 C51

61730-B D
DT 2903-984 B34
NL 7900-874 B34
GB 2014-414 B34
DK 7900-344 B38
SW 7801-280 B38
SF 7900-283 B43
FR 2415-973 B46
US 4237-145 C51

63329-B ABD
DT 2807-286 B35
EP ---3-786 B36
DK 7900-731 B40
J5 4145-286 B51
EP G003-786 C51

66229-B BCDE
US 4165-250 B36+
BE -876-426 B48
DT 2920-592 C50+
NL 7904-180 C51+
GB 2048-889 C51+

68495-B ADE
EP ---4-211 B38
BR 7900-879 B39
J5 4117-412 B43
FR 2417-492 B48
EP G004-211 C51

69767-B ADF
US 4167-464 B38
BE -879-256 C08
WP 8000-844 C19
DK 8002-556 C51

71735-B ADE
BE -876-314 B40
DT 2918-166 B49
DK 7902-052 C02
J5 4154-536 C03
SW 7903-381 C03
FR 2425-851 C09
ZA 7901-585 C51

71736-B DE
BE -876-315 B40
DT 2918-134 B48
DK 7901-742 C02
J5 4154-537 C03
SW 7903-848 C03
FR 2425-852 C09
GB 1573-727 C35
ZA 7901-742 C51

71767-B ADE
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NL 7903-191 B50
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BR 7903-126 C01
SW 7902-993 C03
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NO 7901-702 C04
J5 4157-843 C05
FR 2426-458 C10
ZA 7901-715 C51

71814-B DE
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NL 7903-744 B51
DT 2918-133 B51
SW 7904-250 C04
J5 4157-844 C05
DK 7902-203 C05
FR 2427-093 C11
ZA 7901-806 C51

72125-B BDE
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J5 4126-777 B45
US 4233-332 C48
J8 0046-692 C51

75719-B DE
EP ---4-755 B42
J5 4139-614 B49
BR 7902-021 B50
US 4186-113 C06
PT --69-427 C21
ZA 7901-554 C51

75725-B ADG
EP ---4-768 B42
J5 4135-221 B48
BR 7902-035 B50
PT --69-433 C21
US 4202-925 C21
ZA 7901-555 C51

79089-B BD
WP 7900-823 B43
US 4203-971 C22
EP --16-755 C44
DK 8000-899 C51

79123-B D
BE -875-942 B44
GB 2019-727 B45
BR 7902-537 B46
NL 7903-305 B46
DT 2917-181 B46
DK 7901-758 B50
SW 7903-681 B50
NO 7901-422 B51
SF 7901-375 C04
FR 2424-021 C07
US 4200-103 C19
PT --69-557 C21
ZA 7902-041 C51

79129-B ABD
BE -877-226 B44
US 4183-914 C04
PT --69-705 C05+
US 4217-342 C35+
US 4217-343 C35+
OE 7904-063 C44+
DT 2922-664 C51+

79432-B DM
EP ---5-013 B44
J5 4133-795 B47
NO 7901-044 B47
DK 7901-248 B50
SF 7901-048 B51
ZA 7901-506 C51

79440-A
EP ---
DK 79
J5 41
PT ---
ZA 79

79529-B
GB 20
BE 8
SW 79
FR 24
DK 79
PT --
US 42
ZA 79

79580-B
GB 201
NL 790
DT 281
SF 790
FR 242
US 423

80779-B
US 417
EP --1

81115-B
DT 291
GB 201
J5 415
US 423

82412-B
US 417
DT 292
GB 204

82813-B
DT 291
SW 790
J5 415
GB 203
FR 243
US 423

84417-B
DT 291
FR 242
GB 203
US 423

84527-B
EP ---5
DT 281
J5 414
DL 142
US 423
EP G00

86324-B
EP ---5
DT 292
GB 202
BR 790
DK 790
NO 790
PT --69
J5 416
SF 790
FR 242
US 420
ZA 790

87517-B
US 417
WP 800
SW 800
NL 792
DK 800

M3075-C
ZA 780
ZA 780

00031-C
DS 291
GB 204

-C D
2023-431 C01
7901-592 B44
2421-571 C04
7901-588 C51

5-C BDE
2924-470 C02
2025-426 C04
5000-076 C07
2428-648 C13
2042-722 C39
4237-222 C51

0-C D
2826-907 C04
2428-670 C13+
7906-627 C51+

2-C D
2829-149 C04
---7-037 C04
7902-229 C10
7901-731 C12
T000-080 C37
8005-812 C45
7915-039 C46
2048-938 C51

5-C AD
-879-257 C08
7907-314 C19
2941-097 C20
2033-207 C23+
7906-823 C28
7903-136 C30
7904-394 C35
7905-207 C51

7-C D
2424-809 C08
4236-445 C51

1-C CD
1561-500 C08
7906-927 C51+

7-C D
4189-503 C09
7906-612 C51+

)-C BCD
4189-535 C09
3000-398 C13
--16-208 C41
7904-418 C51

-C D
190-539 C10
090-488 C51+

-C DEF
---8-839 C12
237-064 C51

-C CD
---8-908 C12
000-399 C13
030-439 C15+
001-741 C48
-70-116 C51

C BDJ
800-574 C15+
19-638 C51+

C DJ
80-611 C17
01-248 C28
24-165 C41
06-368 C51

C BD
33-000 C17+
39-796 C18+
33-905 C22+
50-874 C51+

AD
7-947 C17
2-856 C36
8-766 C51

31122-C ADF
BE -880-700 C18
NL 7909-084 C27
DT 2950-849 C28
GB 2038-639 C31
SW 7910-377 C32
BR 7908-256 C39
FR 2444-469 C41
ZA 7906-835 C51

32783-C D
BE -880-843 C19
PT --70-630 C28
DT 2856-874 C28
NL 7909-306 C29
GB 2038-610 C31
NO 7904-315 C34
SW 7910-688 C34
SF 7903-933 C40
FR 2445-111 C42
ZA 7906-565 C51

33092-C CD
EP --10-348 C19
NO 7902-941 C18
DK 7903-619 C19
J5 5047-665 C20
ZA 7904-449 C51

33200-C DJ
FR 2431-994 C19
ZA 7904-543 C51+

33280-C DEF
GB 2032-479 C19+
ZA 7904-089 C51

34494-C D
US 4200-657 C19
DT 2945-334 C22
BE -880-871 C29
ZA 7906-807 C51+

34575-C BDE
WP 8000-836 C19
PT --70-377 C21
EP --10-927 C21
NO 7903-449 C25
SF 7903-330 C30
DK 8002-653 C51

34604-C AD
BE -879-717 C20
DT 2940-908 C51

34618-C ADEF
BE -879-783 C20
NL 7908-001 C21
DT 2943-606 C21
SW 7909-101 C25
DK 7904-659 C26
NO 7903-530 C26
FR 2440-433 C33
GB 2039-556 C33+
BR 7907-102 C37
PT --70-402 C51

34789-C CDEF
DS 2909-550 C20
J5 5120-505 C44
NO 8000-476 C44
EP --16-857 C44
DK 8001-002 C45
SF 8000-714 C48
BR 8001-368 C48
ZA 7905-385 C51

36582-C D
DS 2929-380 C21
ZA 7906-628 C51+

38217-C D
WP 8000-908 C21
SW 8004-778 C37
GB 2045-152 C44
DK 8002-825 C51

38236-C D
WP 8000-961 C21+
SW 7811-469 C26
NO 7903-563 C26+
NO 7903-564 C26+
SW 7900-891 C38
EP --19-627 C51+

38704-C ADF
EP --11-437 C22
J5 5076-156 C30
ZA 7906-151 C51

38732-C DE
EP --11-499 C22
WP 8001-075 C23
PT --70-463 C51

38739-C AD
EP --11-511 C22
US 4228-810 C45
ZA 7906-165 C51

40102-C AD
DT 2850-181 C23
ZA 7906-197 C51

41476-C ADF
WP 8001-062 C23
SW 7811-816 C27
SF 7903-575 C34
EP --19-628 C51

41583-C DE
DS 2932-489 C24
BE -884-696 C51

41946-C DJM
EP --12-000 C24
DK 7904-990 C29
NO 7903-808 C29
J5 5079-880 C31
SF 7903-694 C34
BR 7907-603 C43
ZA 7906-358 C51
PT --70-489 C51

41952-C BDE
EP --12-008 C24
NO 7903-872 C29
DK 7905-022 C30
SF 7903-730 C34
J5 5094-314 C35
ZA 7906-397 C51

41988-C D
EP --12-088 C24+
BR 7907-898 C28+
DK 7905-128 C31+
FR 2443-208 C39
FR 2446-320 C44
ZA 7906-554 C51
ZA 7906-557 C51
ZA 7906-558 C51

43173-C DEG
US 4206-068 C24
CA 1090-128 C51

43314-C DJM
BE -881-417 C25
PT --70-738 C32
WP 8001-563 C34
SF 8000-250 C43
SW 8006-649 C47
NL 8020-027 C50
NO 8002-849 C51

43680-C ADJ
DT 2947-971 C25+
NL 7908-701 C25+
SW 7909-923 C29
NO 7903-855 C29+
DK 7905-051 C30+
BR 7907-834 C30+
BE -880-324 C26+
SW 7812-935 C31
SF 7903-895 C34
GB 2041-210 C37+
FR 2442-649 C38+
J5 5141-186 C51+

43704-C AD
DT 2948-795 C25
NL 7908-718 C25
BE -880-386 C26
SW 7909-914 C30
DK 7904-702 C31
GB 2038-841 C31
J5 5092-710 C35
FR 2443-472 C39
BR 7907-886 C41
ZA 7906-550 C51

43808-C D
GB 2035-224 C25
DT 2945-584 C35
ZA 7906-268 C51

44833-C DF
US 4206-514 C25
GB 1581-586 C51

45019-C BCD
US 4207-326 C25
EP --20-077 C51

45501-C DJ
GB 2036-075 C26+
FR 2440-400 C33+
DT 2943-579 C49+
US 4237-234 C51

46243-C DK
BE -881-627 C27
DT 2917-060 C45
GB 2049-261 C51

46544-C CDEF
DT 2952-377 C27
GB 2038-636 C31
J5 5085-507 C33
SW 7910-625 C33
FR 2445-203 C42
ZA 7907-024 C51

46677-C DE
EP --12-510 C27+
J5 5081-867 C32+
BR 7907-909 C33
ZA 7906-556 C51

47497-C D
NL 7812-211 C27
BE -880-639 C28
PT --70-588 C28
DT 2949-960 C28
GB 2038-307 C30
FR 2444-009 C40
J5 5116-409 C43
ZA 7906-672 C51

48184-C BCD
BE -880-777 C28+
NL 7812-359 C28
PT --70-556 C28+
EP --13-449 C31+
DK 7905-472 C33+
J5 5089-232 C34+
FR 2444-467 C41+
NL 7903-299 C46
ZA 7906-944 C51

49143-C ADE
NL 7909-158 C28+
BE -880-801 C29+
DT 2951-196 C29+
SW 7910-529 C33+
J5 5090-599 C34+
GB 2037-834 C38+
FR 2444-711 C41+
BR 7908-454 C41
ZA 7906-924 C51

49737-C DE
WP 8001-241 C28
EP --12-965 C29
DT 2855-917 C29
NO 7904-222 C33
ZA 7906-974 C51

49867-C BD
BE -881-953 C29
NL 8001-241 C39
DT 3007-446 C39
NO 8000-651 C43
SW 7902-035 C43
J5 5120-864 C44
DK 8000-968 C44
GB 2045-083 C44
SF 8000-706 C48
FR 2450-599 C51

51711-C D
BE -882-063 C30
FR 2450-563 C51

53659-C D
DT 3000-206 C31
GB 2039-711 C34
BR 8000-043 C41
FR 2445-698 C43
ZA 7907-033 C51

53761-C DE
EP --13-390 C31+
J5 5105-609 C39+
BR 7908-284 C39+
US 4226-889 C43
ZA 7906-713 C51

53811-C ADJ
EP --13-499 C31
NO 7904-136 C32
BR 7908-357 C32
GB 2039-766 C34
J5 5116-405 C43
ZA 7906-867 C51

55245-C D
BE -882-262 C32
DT 2910-665 C40
NL 8001-606 C41
GB 2044-774 C43
J5 5141-167 C51

56909-C ABDE
BE -881-494 C33
PT --70-721 C32
NL 8000-446 C51
DT 3014-045 C51

57019-C AD
DT 2903-267 C33
J5 5102-604 C38
EP --19-681 C51

57278-C BD
EP --13-851 C33
PT --70-610 C28
J5 5085-525 C33
FR 2444-464 C41
ZA 7906-661 C51

58613-C D
US 4214-987 C33+
CA 1090-491 C51

58620-C AD
US 4215-004 C33+
NL 7908-619 C39+
DT 3006-333 C39+
J5 5118-999 C43+
GB 2046-295 C46+
FR 2450-871 C51+

60503-C ADF
BE -881-705 C35
DT 3005-360 C36
FR 2448-867 C48
PT --70-826 C51

60709-C AD
DT 2940-150 C35
J5 5108-286 C40
GB 2043-081 C40
US 4237-218 C51

62039-C D
US 4216-711 C35
DT 3014-727 C47
GB 2048-700 C51

62286-C D
BE -881-866 C36
NL 8001-400 C39
DT 3008-900 C39
GB 2043-651 C41
J5 5124-458 C45
FR 2450-842 C51

62309-C ABCD
BE -882-829 C36
DT 3014-524 C45
NO 8001-112 C49
SW 8002-847 C49
GB 2048-070 C50
J5 5141-409 C51

62317-C D
BE -882-864 C36
DT 3015-045 C46
GB 2049-162 C51

62642-C D
DT 2907-010 C36
DS 2907-010 C51

64215-C D
BE -882-950 C37
DT 2916-468 C45+
NL 8002-392 C46
SW 8003-010 C50
DK 8001-733 C51

64232-C D
BE -883-030 C37
DT 3018-909 C49
NL 8002-672 C50
PT --71-270 C51
GB 2048-643 C51

64236-C D
BE -883-041 C37
NL 8002-794 C49
DT 3018-893 C49
PT --71-259 C51

64659-C DJ
EP --15-157 C37
US 4236-382 C51

65963-C BCD
BE -882-067 C38
NL 7908-887 C39
DT 2945-497 C42
GB 2044-755 C43
DK 8000-948 C44
J5 5127-359 C46
FR 2450-811 C51

65987-C BD
BE -883-161 C38
DT 3011-334 C47
NL 8002-658 C48
GB 2048-711 C51

66351-C ADF
DT 2909-396 C38
NL 8001-387 C39
DK 8000-987 C44
FR 2450-897 C51

66428-C BCD
DT 3008-224 C38
US 4225-582 C42
GB 2044-616 C43
FR 2450-609 C51

66495-C CDE
FR 2442-887 C38
ZA 7906-438 C51

67666-C D
US 4220-721 C38
BE -882-926 C45
NL 7908-082 C46
DT 2943-684 C46
GB 2047-709 C49
DK 8001-042 C51
NO 7903-101 C51
SW 7907-773 C51

67728-C CD
WP 8001-803 C38+
GB 2048-844 C51+

67763-C CDEH
BE -883-183 C39
DT 3017-611 C48
PT --71-194 C51

67764-C CDEH
BE -883-184 C39
DT 3017-642 C48
PT --71-193 C51

67780-C D
BE -883-239 C39
US 4229-489 C45
DT 3016-517 C50
NL 8002-659 C51

67840-C AD
DT 2908-437 C39
GB 2043-668 C41
FR 2450-850 C51

67855-C BDE
DT 2908-670 C39
FR 2450-834 C51
GB 2048-891 C51

67859-C DE
DT 2908-769 C39
FR 2450-875 C51
GB 2048-890 C51

67995-C BD
DT 3005-226 C39
NL 8001-175 C39
GB 2043-652 C41
J5 5120-600 C44
FR 2450-873 C51

68002-C DG
DT 3007-334 C39
BE -882-095 C39
NL 7901-921 C39
FR 2450-861 C51

68016-C D
DT 3007-898 C39
FR 2450-675 C51
GB 2048-655 C51

68044-C BDE
DT 3008-668 C39
J5 5118-369 C43
GB 2046-757 C47
FR 2450-876 C51

68045-C D
DT 3008-681 C39+
NL 7908-307 C39
BE -882-096 C39+
GB 2044-068 C42
FR 2450-566 C51+

68053-C D
DT 3008-842 C39
NL 8000-895 C39
GB 2045-195 C44
FR 2450-562 C51

68055-C CD
DT 3008-854 C39
HU H002-577 C51

68243-C BD
EP --15-841 C39
J5 5141-198 C51
FR 2450-877 C51

68267-C D
FR 2443-209 C39
ZA 7906-422 C51

68268-C D
FR 2443-211 C39
ZA 7906-227 C51

69556-C D
ZA 7902-698 C39
ZA 7902-698 C30
DL -143-201 C42+
GB 2046-578 C47+
NO 7901-409 C51+
SW 7903-795 C51+

69592-C BDE
BE -883-369 C40
NL 8002-630 C49
DT 3017-417 C49
PT --71-252 C51

69605-C D
BE -883-456 C40
DT 3019-587 C49
NL 8002-389 C50
PT --71-227 C51

69837-C CDE
DT 2908-323 C40
EP --15-502 C41
J5 5118-466 C43
DK 8000-883 C44
BR 8001-231 C48
PT --70-890 C51

69838-C CDE
DT 2908-324 C40
EP --15-498 C41
J5 5118-472 C43
DK 8000-887 C44
BR 8001-203 C48
PT --70-891 C51

69839-C AD
DT 2908-436 C40
GB 2046-772 C47
FR 2450-632 C51

71622-C D
BE -883-507 C41
NL 7908-875 C51

71632-C D
BE -883-528 C41
NL 8003-115 C51
DT 3020-608 C51

71757-C DJ
DT 2911-760 C41
BR 8001-791 C49
GB 2048-703 C51

72007-C D
EP --16-573 C41+
J5 5141-194 C51+

73486-C D
BE -883-521 C42+
NL 8003-157 C51+
DT 3020-170 C51+

73528-C DF
DL -143-141 C42
DT 2952-105 C51

73674-C BD
DT 2850-047 C42
J5 5077-897 C30
US 4237-220 C51

73795-C D
DT 2914-145 C42
J5 5139-890 C51

73897-C ADJ
DT 3013-171 C42+
J5 5132-602 C48
J5 5134-607 C48
J5 5134-602 C48
GB 2048-718 C51+

74013-C BDJ
J5 5075-651 C42
J5 5075-651 C30
US 4236-892 C51

75321-C DE
BE -882-667 C43
NL 8001-929 C43
DT 3012-922 C44
DK 8001-443 C48
NO 8000-930 C48
SW 8002-599 C48
J5 5137-199 C50
BR 8001-956 C50
GB 2048-930 C51+

75522-C D
DT 2914-290 C43
EP --19-704 C51

75563-C D
DT 2919-556 C43
US 4236-533 C51

76316-C ABD
NL 8001-223 C43+
DT 3007-368 C44+
GB 2045-618 C45+
J5 5133-310 C48
J5 5141-408 C51

76926-C DE
US 4226-937 C43
GB 2048-887 C51

77032-C ABD
WP 8002-201 C43
US 4236-893 C51

77063-C DE
BE -882-821 C44
DT 3015-415 C45
PT --71-133 C47
NO 8001-181 C50
SW 8003-020 C50
DK 8001-731 C51

77241-C D
DT 2915-538 C44
EP --17-809 C45
BR 8002-377 C51

77470-C DE
EP --17-396 C44
J5 5141-458 C51

77557-C D
EP --17-595 C44
J5 5141-406 C51

78243-C BD
NL 8001-676 C44
GB 2046-272 C46
J5 5141-500 C51

78918-C DE
BE -882-925 C45
NL 8002-364 C46
DT 3016-109 C46
PT --71-149 C47
DK 8001-690 C51

79058-C D
DT 2916-604 C45
GB 2048-928 C51

79098-C D
DT 3011-502 C45
GB 2049-235 C51

79104-C DG
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83096-C BCD
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DK 8001-775 C51

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90829-C AD
GB 2048-931 C51+
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90849-C ADJ
GB 2049-151 C51+

90856-C DL
GB 2049-199 C51+

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90862-C DE
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90870-C DE
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7904-155 C51

461-C D
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